

FINANCIAL TIMES

No. 27,469

Thursday January 26 1978

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NEWS SUMMARY

GENERAL

Belize talks break down

is between Britain and ze on the constitutional re of the central American ish colony broke down in don yesterday.

ep divisions between the tions of Dr. David Owen, sign and Commonwealth vity and Mr. George Price, Belize Premier, left Belize ing new international ne guarantees in the event the British garrison being drawn.

ritain favour session of some ze territory to Guatemala in range for a Guatemalan ertaining to renounce its claim all Belize, but Mr. Price oses any cession. Back Page

BUSINESS

Recovery in gilts; £ gains ground

● **GILTS** rallied after the set-back of the previous three trading days. The FT Government Securities Index recovered 0.12 to 76.79.

● **STOCKS** also revived after initial weakness. The FT 30-Share Index, down 4.7 at 11.1 a.m., closed at 483.2, off 0.2 on the day.

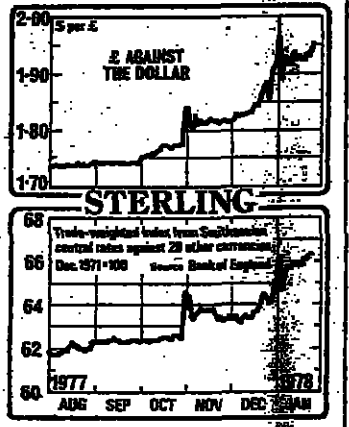
● **STERLING** gained a further 55 points to \$195.25 and its trade-weighted index, 55.5 to 65.4 (66.3), the highest closing level since April, 1976. Dollar was under more pressure, its trade-weighted depreciation widening to 4.39 (4.84) per cent. Bahrain suspends dollar dealings. Page 3

● **GOLD** rose \$1 to \$177.25.

● **WALL STREET** rose 10.25 to 772.44. Upward pressure on U.S. interest rates. Page 4

● **CITICORP** launched an Australian dollar bond issue for \$415m as part of a plan to extend the maturities of its non-U.S. dollar liabilities. Eurobond market. Page 28

● **U.K. GOVERNMENT** is considering a plan to exchange light crude oil from the North Sea for Venezuelan heavy oil. Page 4



Imp makers ed to MPs'

ning Philips Industries and an-GEC, the lamp manufac-ers, Mr. David McKeljohn, a arch engineer alleged to a among Select Committee in-igating lamp durability that tish lamp makers had delib-erly deceived the committee. k Page

skin threat

posals for a 71 per cent. 'ation of the 'green and' will be scrapped if itain's Common Market part's do not stop obstructing the age and allow it to go through February 1, Mr. John Silkin, riculture Minister, told a mmons committee. Back Page

ky spy plan

nce has proposed inclusion n international system of trol satellites as part of a trol disarmament plan to be mitted to the UN in May. st Germany said last night t it was preparing a plan to tect people in the event of a ilitic crash there.

idnap puzzle

identity of the Paris nappers of the Belgian tualist, Baron Edouard n Empain, remained a tery as four separate claims responsibility confused police. se 2

panish murders

Sauret, former mayor of eulona and his wife, were ssinated when four people eed their way into their home l planted a time bomb on Sr. ire's chest. Page 2

ondon gas blast

explosion ripped through the ant Trooper pub in London's t End injuring 11 people r maderworkers drilled through as pipe.

matter of LSD

copy of the Financial Times ave been the secret signal ween two LSD drug pushers was alleged at Bristol Crown rt. The newspaper also con-ns the international exchange e they needed, it was said.

riefly

o soldiers were injured when bomb exploded in Co. Armagh. Belfast bombers struck at a iders' supply company. Bannan is protest. Page 6

re Conale Mulder, reputed heir-arent to Mr. John Vorster, uth African Prime Minister, is appointed last night to over- the future of South Africa's n. blacks.

re world could face disaster as result of the West Antarctic sheet melting if carbon oxide levels continued to rise their present rate, a U.S. lar scientist warned.

Iranian heiress daughter-in- of the Duchess of Bedford id London Bankruptcy Court at she lost £1m. at gambling in rec years.

erial schools for bright ildren are to be re-established China.

CHIEF PRICE CHANGES YESTERDAY

Prices in pence unless otherwise indicated)

RISES	FALLS
Cashmere 131pc 97.1131 + 1	Turner and Newall... 215 + 6
ATs Did... 238 + 6	Castledale... 350 + 30
Money and Hawkes... 200 + 5	East Rand Prop... 416 + 28
Although... 136 + 12	Falcon Mines... 195 + 5
Aluminium... 350 + 15	Rhodesian Crp... 24 + 3
Common Brs... 197 + 12	Union Crp... 264 + 9
INF... 181 + 10	
Works... 37 + 7	Berlford (S. and W.) 217 - 6
Atles Prop... 98 + 9	Costain (R.R.)... 270 - 6
Electrical Indstl. Sec... 58 + 3	Hall (Matthew)... 191 - 6
Feeders... 30 + 4	Hickson and Welch... 350 - 10
Basic Constructions... 72 + 7	HK and Shanghai... 251 - 7
Sound Diffusion... 45 + 8	King and Shaxon... 64 - 6
Date and Lyle... 217 + 15	Mears Bros... 22 - 6
Thomson Crp... 250 + 15	Racal Electronics... 210 - 8
	United Discount... 470 - 5
	Wargyn Plantations... 196 - 6

Pledges to whites bring Rhodesia 'near to settlement'

BY OUR FOREIGN STAFF

The Rhodesian Government and the country's three internally-based nationalist groups seem finally to have reached agreement in principle on a majority rule constitution.

Although Mr. Ian Smith, Rhodesian Prime Minister, would say yesterday only that the two sides were nearer agreement than most people had thought they would come, nationalists were more optimistic.

Agreement is understood to have been reached in Salisbury on the last major constitutional hurdle—how long safeguards for whites should last. It is agreed that special seats in Parliament, giving whites a legislative blocking mechanism, should last for 10 years.

The negotiators—Mr. Smith, Bishop Abel Muzorewa, the Rev. Mubvumba Sithole and Senator Chief Chirwa—are believed to be discussing the mechanics of setting up an interim, broad-based Government which would go into the finer details. This Government would consider the other key outstanding issue in the settlement—negotiations with Mr. Nkomo and Mr. Mugabe.

In London, Dr. Owen, speaking before Mr. Smith's remarks were known, told the Commons that he would "certainly not frustrate, nor will the Government, what about as near an agreement as we have been for the last two weeks."

However, it is thought that Mr. Smith and the nationalists would like to have something concrete to produce before Monday's talks in Malta between Dr. David Owen, the Foreign Secretary, and the Patriotic Front nationalist alliance, which is not a party to the Salisbury talks.

If an agreement were to be announced, this would give a considerable propaganda edge to Mr. Smith and the internal nationalists over the separate Anglo-American initiative for Rhodesia, which almost has been stalled since before Christmas.

Confidence

Mr. Smith launched a strong attack on Dr. Owen and his meeting in Malta with Mr. Joshua Nkomo and Mr. Robert Mugabe, joint leaders of the Patriotic Front. He accused the Foreign Secretary of planning to enter an "unholy alliance" with Mr. Nkomo and Mr. Mugabe.

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AGR orders confirmed—and 'option' on PWR

BY DAVID FISHLICK, SCIENCE EDITOR

EARLY ORDERS for two new nuclear power stations, based on the British-designed advanced gas-cooled reactor, and costing an estimated £650m, each, are to be placed by the electricity supply industry, the Government confirmed yesterday.

The new stations, totalling about 2,600 MW, will be a modified version of AGR stations already operating at Hinkley in Somerset and Hunterston in Scotland, redesigned chiefly to facilitate maintenance and inspection.

Construction of both stations is expected to start in 1980. One will be at the new Torness site about 50 miles from Edinburgh, the other at one of three possible sites in England.

The Government has also approved a proposal of the Central Electricity Generating Board—later endorsed by the whole of the electricity supply industry—for the development of the U.S.-designed, pressurised water reactor to the stage of being a "lid option" over the next four years.

This would include obtaining the necessary safety approvals

and planning consent to construct a PWR station of about 1,300 MW not earlier than 1982. In the expectation that the Government would abandon its previous "insurance policy" reactor, the steam-generating heavy water reactor, the CEBG had asked for a firm commitment from Government to a PWR.

Sir John Hill speech, Page 6
Parliament, Page 16
New energy systems, Page 22

order, as insurance against further troubles arising with its AGR stations. These have run into delays on construction, problems during commissioning and low availability during the two years of operation.

Mr. Anthony Wedgwood Benn, Energy Secretary, told Parliament yesterday, "It was the unanimous advice of all concerned that in the changed circumstances of today, the SGHWR should not be adopted for the next power station order."

The Government has accepted, he said, that it would be right to discontinue work on the SGHWR.

Bonn defends economic record

BY ADRIAN DICKS

West German Government To-day's contribution to the debate came in the form of a position paper published with the annual economic report, in which Herr Schmidt's coalition of Social Democrats and Free Democrats formally endorsed the goal of 3.5 per cent real Gross National Product growth this year.

This target is appreciably below the 4.5 per cent, which the Government said only a few months ago could be achieved in 1978, but the position paper strongly defends it as the most that can be hoped for. It issues a warning that it too, could be endangered by such developments as a further weakening of the dollar.

The heart of the paper is a plea for understanding of the limits to Bonn's freedom of action. The confines need to be seen within which any autonomous steering of the domestic economy can be undertaken in a nation heavily dependent on exports," it states.

"It must be recalled, that exports make up about 27.5 per cent of gross national product, and thus lie considerably above the level in the U.S.—about 16 per cent—and in Japan—about 15 per cent. In some sectors the export share is over 50 per cent. As a result, companies' investment decisions are heavily dependent on economic developments in partner countries, and especially in western Europe."

Continued on Back Page
Details Page 2

CONTENTS OF TO-DAY'S ISSUE

European news	2	Technical page	13	Int'l. Companies	28-29
Letters	3	Marketing	19	Euromarkets	25
Overseas news	3	Arts page	22	Wall Street	27
World trade news	4	Leaders page	22	Foreign Exchanges	27
Home news—general	5-6	U.K. Companies	24-26	Farming, raw materials	30
—Labour	7	Mining	26	U.K. stock market	32
—Parliament	16				

FEATURES

Teething troubles with new energy systems	22	Delay over Austria's nuclear development	14	Liquidity problems cloud Sudan's prospects	4
Economic Viewpoint: The Mead Proposals	23	Spain's energy policy	2	FT-SURVEY	
Business and the courts: U.S. anti-trust law	20	Angola's internal purge: Confrontation policy	3	Medical equipment industry	32-38

ANNUAL STATEMENTS

Appointments	7	FT-Accounts Index	32	Share Information	40-41
Letters	8-15	Men	42	TV and Radio	20
Books	16	Money Market	32	U.K. Stocks	39
Business Cases	17	Stocks	33		
Crossword	20				
Economic Indicators	21				
Entertainment Guide	22				

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Air and ship payments 'mean'

By Ian Hargreaves and Michael Dome

INTERIM compensation payments totalling £21.95m, to shipbuilding and aircraft companies nationalised last July were greeted last night with dismay and derision by the companies concerned.

General Electric Company, former joint owners of the British Aircraft Company, said the £5.1m awarded was, when compared with the £40m. BAC profit in 1976, "mean even as a tip, let alone compensation."

When Lord Winterbottom for the Government promised interim payments on account last November, he said the size of the payment would be related to the provisional valuation placed on each company. The general view among the companies last night was that interim payment would bear no relation to the final sum.

Sir John Hunter, chairman of the Swan Hunter group which is to receive £2.35m, said the figure was "meaningless" and a senior executive of Yarrow Shipbuilders said he was disappointed. "We can only assume the £1.4m figure bears no relation to the final payment."

Yarrow points out that its balance sheet value on vesting day was £22m, and it is likely to be seeking at least £10m when its compensation bid is put to the Government, probably in March. Yarrow criticised yesterday's announcement for failing to clarify the terms on which the Government stock forming the compensation will be paid.

Mr. Gerald Kaufman, Industry Minister, making the announcement, said the sums were "derived from a preliminary view of the Government's likely negotiating positions on both the basic value and any appropriate deductions" under section 39 of the Nationalisation Act. This section relates to certain dividends and other transactions.

Three companies—Scott Lithgow, Vickers Shipbuilding and Engineering—do not appear in the interim payments list at all. This probably reflects the degree of their co-operation with the Government's system of assessment so far. Vosper's view last night was that with such small payments on offer, it was better to be left out.

The unofficial expectation of compensation for the four aerospace companies is at least £200m, and yesterday's awards of £9.7m are not regarded as significant.

Details of the other payments are: Hawker Siddeley Aviation Ltd. and Hawker Siddeley Dynamics Ltd. £3.1m; Scottish Aviation £0.5m; Austin and Pickersley £5.2m; Brooke Marine £0.35m; Cammell Laird Shipbuilders £0.16m; Hall Russell & Co. £0.3m; George Clark & NEM £0.65m; Hawthorn Leslie (Engineers) £0.4m; John G. Kincaid & Co. £1.45m.

Lex, Back Page

Call for tax to be based on spending

BY ANTHONY HARRIS

A RADICAL REFORM of direct taxes over the next decade is proposed in a report by a committee of experts chaired by Prof. James Meade, published to-day.

Its central recommendation is that taxation should be based in principle on expenditure rather than income, and on company cash flow rather than profits.

This would encourage enterprise, since all funds devoted to saving and investment would be tax-free, and result in a drastic simplification of the whole tax system.

Special taxes and rules for capital gains, close companies, trusts and savings institutions would be swept away.

The report proposes a reform of social security to abolish the "poverty trap" and a sharp cut in the highest marginal rates of tax, as well as new taxes on gifts, inheritance and probably on emigration.

The aim of the committee, set up by the independent Institute for Fiscal Studies, has been to replace the present system, described as burdensome, illogical, and inefficient by a new and logical basis which could be accepted by both main political parties.

Professor Meade told a Press conference that successive changes in the structure of taxation had caused disruption, and left a system full of damaging anomalies.

"What is needed is an ultimate structure, leaving differences in emphasis in social and economic policies to be expressed through changes in rates," he explained.

Radical

The report has been in circulation in draft for some months among experts in industry, the professions, the trade unions, and in Whitehall.

The Whitehall reaction has on the whole been favourable, despite the radical nature of the proposals, and the Inland Revenue has produced an internal study suggesting that it would be feasible to replace the higher rates of income tax with an expenditure tax, as the report proposes.

There has been no public political comment, but privately the report is regarded by some senior Conservatives as unnecessarily radical. It has been welcomed by the Liberals.

The two-tier expenditure tax itself is rather similar to one proposed by Professor Nicholas Kaldor and Mr. Hugh Gaiskell, then Leader of the Labour Party, in the mid-1950s.

The core of the report is an analysis showing that inflation has produced some of the worst distortions in the system—a

heavy and arbitrary tax imposed by inflation itself.

A major section then analyses the problem of producing a true definition of income and corporate profit in conditions of inflation.

It concludes that a perfect definition is almost impossible even in theory, a problem illustrated by the furious debate still raging about correction of company accounts for inflation.

Furthermore, even an approximately just income-tax base corrected for inflation would involve enormous extra complication.

By contrast an expenditure tax would be basically simple both to administer and to understand. Because the tax would be incurred by the act of spending, a taxpayer could plan his own

£ in New York

	January 26	Previous
1 month	51.9820-9350	51.9820-9490
3 months	0.28-0.29 premium	0.28-0.29 premium
12 months	0.67-0.71 premium	0.70-0.70 premium

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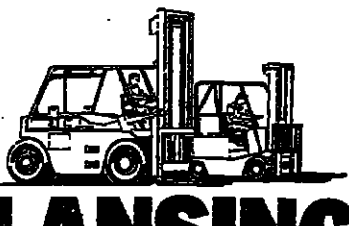
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EUROPEAN NEWS

W. German Cabinet backs 3.5% GNP growth target

BY ADRIAN DICKS

BONN, Jan. 25.

THE WEST German Cabinet today approved the annual economic report, officially setting out the target of a 3.5 per cent increase in real Gross National Product this year. Last year, GNP increased by only 2.4 per cent, or by barely half the 4.5-5 per cent target.

WEST GERMAN ECONOMIC FORECASTS FOR 1978, COMPARED WITH ACTUAL DEVELOPMENTS IN 1976 AND 1977

	1976	1977	1978
GNP (in 1970 prices)	5.4	2.4	3.5
Unemployment rate	4.4	4.5	4.5
Private consumption	8.2	7	6.5-7.5
Fixed investment	8.5	6.5	8-9
Gross wages	7	7	5.5
Gross dividend income	15.4	2.5	9-11

1977 figures are preliminary
1978 figures are forecasts

(Source: Ministry of Economics, Bonn)

per cent, target put forward this time 12 months ago. The report makes clear that West German officials see the attainment of 3.5 per cent this year as an ambitious goal which may well not be reached if unfavourable conditions prevail. If it can be reached, the actual increase by the end of December, 1978, would be of the order of 4.5-5 per cent, according to Dr. Otto Schlecht, State Secretary at the Economics Ministry. In the view of the Ministry's experts, the attainment of an average growth rate of 3.5 per cent during this year could be endangered by the following four factors:

Most seaports halted by strike

BY JONATHAN CARR

BONN, Jan. 25.

DOCKWORKERS demanding a better wage offer went on strike in most West German seaports today, saying they were ready for a lengthy stoppage if necessary.

No serious shortage of goods are expected at this stage, and most of West Germany's oil imports come via ports not affected by the strike.

Nonetheless, port operators fear that their particular trump card—a reputation for reliability with exemplary labour relations—may vanish if the strike goes on for long. And business loss in cheaper European competitors may not return.

Further, the port stoppage—the fifth and much the most widespread in West German history—comes at a peculiarly bad moment. The Government today published a report setting out its growth and other economic targets for 1978 and appealing for reason in wage talks from all social groups.

Wage negotiations in the metalworking industry are getting under way at regional level throughout the country. These were expected to be especially tough and there have already been brief work stoppages. The trouble at the ports has emerged somewhat unexpectedly and it is widely felt, could act as a signal to other sectors.

The public services union (OETV) has been insisting on a 9 per cent wage increase for dockworkers this year. The employers are offering slightly less than 8 per cent—half a rise on an earlier proposal of 5.3 per cent made by an official mediator.

At the end of last week almost 90 per cent of the 16,000 dockworkers in the union voted for strike action, and intensive negotiations for reason in wage talks from all social groups.

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Belgian N-leak fears 'alarmist'

By Guy de Jonquieres

BRUSSELS, Jan. 25.

ALLEGATIONS by an environmentalist group that a recent leakage of radioactive material from a Belgian nuclear reactor has led to serious contamination of up to 80 site workers were dismissed as a "typical display of alarmism" today by a senior executive of the companies operating the plant.

Mr. Robert van Damme, a director of Electriciteit van België and Interatom of Belgium, took the unusual step of appearing at public hearings on nuclear safety being held here by the European Commission to answer questions. While confirming that the incident had occurred, he said that medical checks had shown that the levels of contamination suffered by the workers were not high enough to endanger their health and none had had to enter hospital.

His reassurances were supported by Dr. Edward Teller, the well-known nuclear scientist and pioneer of hydrogen bomb technology, who was a guest speaker at the hearings. He said that he had been exposed to more intense radioactivity when he flew to Brussels from California than the workers at the plant, which is located at Tihange, near Liège.

The incident took place on January 13 when a pipe in the reactor, a Westinghouse pressurised water plant, was halted temporarily to permit routine replacement of part of its fuel. According to Mr. van Damme, escaping gas accidentally caused a "slight" contamination in the reactor building by radioactive iodine 131.

But the local branch of the Friends of the Earth, which first revealed the incident, said that tests taken inside the building showed that the iodine concentration was 900 times higher than the legal limit. The group claimed that the security services attributed this high reading to a measurement error and authorised the continuation of work inside the building.

The Tihange reactor entered service in August 1975. Construction of a second, similar model is under way and a third is planned on the same site. Meanwhile, Dr. Teller, argued today that the only way in which this kind of accident could be successfully prevented is by the economic development of the Third World by reducing their consumption of oil so that more of the fuel became available for poor countries.

Reuter adds from The Hague: The Dutch Government is expected to face heavy pressure in parliament tomorrow to demand tighter safeguards for a controversial deal under which Brazilian uranium will be enriched here in the 1980s.

Terrorists kill two with bomb in Barcelona

By Robert Graham

MADRID, Jan. 25.

THE FORMER mayor of Barcelona, Sr. Joaquin Vilella Sauret, was assassinated early this morning when four unidentified persons took him by surprise in a Barcelona home and planted a time bomb device on his chest. The time bomb apparently exploded prematurely while the terrorists were still in the house, killing the mayor's wife as well with the blast.

This is the most spectacular incident in a growing wave of violence in Spain. Accounts of how the bomb exploded are obscure and police could not clarify whether it went off because of faulty attachment or as a result of a struggle. Police are understood to have found a note in the house with instructions how to operate the bomb device. This has produced the theory of a bungled attempt at ransom.

The group of assassins comprised three young men and a woman. A note to the Barcelona studios of Radio 4 later claimed the attack was the responsibility of the little-known International Communist Party—a group which also claimed responsibility for a minor bomb attack on a Barcelona prison two days ago.

Sr. Vilella was Mayor of Barcelona from 1975 until the elections last year. Although he has allied himself with the Right-wing Alianza Popular Party, he has not been active politically since the June 1977 elections.

unlike the rest of the industrialised world chose to ignore their implications. Between 1963 and 1973 the demand for primary energy increased 8.6 per cent a year (well above the European average), and since then it has continued to increase at 4 per cent a year. Prices for industrial fuel oil have been wholly unrealistic—at present they are 20 per cent below the lowest prices elsewhere in Europe (in the Netherlands)—and electricity tariffs have lagged way behind other industrial overheads.

The Ministry of Industry soon discovered that to bring pricing policy into line and map energy needs over the next ten years, a fundamental reappraisal of the existing structures of the energy sector was required.

In 1947 Gen. Franco ended Campa's petroleum monopoly, but allowed it to retain the monopoly of distribution. The result was an amazing jungle of conflicting State and private interests in the energy sector.

Thus the State holding company INI (controlled—officially at least—by the Ministry of Industry) is involved with the Finance Ministry (as sleeping partner) in Hispanoil, responsible for exploration and production abroad. INI is involved in transportation of petroleum products—roughly 17 per cent of total Spanish needs—through two companies. It also controls 48 per cent of all refining with a 71 per cent holding in Enpetrol.

The energy plan proposes that the holdings of the Finance Ministry in Campa be transferred to the Ministry of Industry to be managed in a newly formed energy steering committee within INI, which in turn would hold INI's own energy holdings. This transfer would not only give

France proposes disarmament plan

BY ROBERT MAUTHNER

PARIS, Jan. 25.

FRANCE TODAY proposed a comprehensive new disarmament plan including the replacement of the 18-nation Geneva Disarmament Conference by a smaller and more effective body and the creation of an international system of arms control by satellite.

The French initiative, which does not spell out in detail the membership of this new body, was announced by President Giscard d'Estaing, will be submitted to the special UN Assembly meeting on disarmament due to be held between May 23 and June 28. The other permanent members of the UN Security Council, as well as the member-countries of the Atlantic Alliance and the European Community, have already been informed of the contents of the French plan.

After boycotting the Geneva conference since the days of genuine disarmament is possible only in conjunction with an effective control system, the French plan states that new space technologies offer a good method to carry out such supervision. It also suggests that a special international satellite agency should be set up for this purpose.

Emphasising that the Geneva conference had manifestly failed in its purpose, the French are proposing that it should be scrapped altogether and replaced by a more restricted permanent forum under the umbrella of the UN.

Though the French proposals do not spell out in detail the membership of this new body, they stress that it should be more representative than the Geneva conference and it is such an accumulation of understood that France wants nuclear and conventional arms to become a member. It is also clear that France considers that the new forum should not be presided over by the U.S., that all the countries which have signed the Final Act of the Helsinki conference on security and co-operation in Europe, including the U.S. and the Soviet Union, should participate in such a conference.

Having criticised and boycotted the Vienna talks ever since they began, the French plainly consider that they could not now join them in their present form. But the new proposals, if accepted, would enable France to return to the international discussions in this vital field without losing face.

On nuclear problems, the plan specifies that, because of the enormous nuclear forces which they had built up, it was up to the U.S. and the Soviet Union to reduce their nuclear arms in the first place. France would support their efforts, but at the same time it intended to maintain its own nuclear deterrent "at the level of credibility required for its security."

While supporting the creation of nuclear-free zones, the plan stresses that countries in these zones are nevertheless entitled to assurances that they would not be used by the nuclear powers to further their military or political ends. Nor should any restrictions be put on the supply of nuclear energy for peaceful purposes to non-nuclear powers.

Meanwhile, sharp controversy has arisen within the trade union movement over suggestions by Sig. Luciano Lama, head of the country's largest and Communist-dominated union confederation, that measures to reduce unemployment would have to take priority over improving members' working conditions, essentially their wage levels.

Sig. Lama, himself a former Communist deputy in Parliament, has also put emphasis in a newspaper interview here on the need for greater labour mobility, stressing that companies—both State and private—cannot be saddled indefinitely with surplus labour.

He has since made it clear that he was not advocating outright dismissals, but rather closer collaboration between employers and unions whereby workers surplus in one organisation might be absorbed in another, something which until now has in practice not been acceptable to the trade unions.

As envisaged by the Prime Minister-designate, this could allow the Communists to vote directly in support of Government policies while remaining outside the Administration as such. Such a formula, if agreed

finally, would certainly enhance the political status of the Communists but would, of course, be appreciably less than Sig. Berlinguer has demanded publicly in recent weeks.

The Christian Democrat party leadership is also to meet tomorrow. Sig. Andreotti today saw the head of the national employers' organisation, Dr. Guido Carli, and plans to meet on Friday representatives of the main trade union organisations. The Premier-designate is anxious to secure the backing of the Communist Party for an emergency economic and social programme to combat the intended effects of industrial recession in Italy.

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The main negotiating problem seems certain to be agriculture, with France and Italy fearing that agreements reached for Greek Mediterranean products could set a precedent for negotiations over the much larger volume of Spanish and Portuguese products.

Private business, especially the banks which are the prime utility shareholders, has reacted to this public accountability of key risks not only upsetting some of his carefully chosen ministers but also a sizeable portion of the Centre and centre-right vote—the business community—if he appears to favour disguised nationalisation. Against this also, Mr. Suarez knows that a proper reorganisation of the energy sector is a top priority.

Italy Communist leadership to discuss stand on Government

BY DOMINICK J. COYLE

ROME, Jan. 25.

THE CENTRAL committee of the Italian Communist Party meets in special session here tomorrow for what could be among its most crucial ever meetings. At issue is whether to risk a new general election or settle instead for a compromise governing formula, with the long-ruling Christian Democrats short of the party's public demand for direct participation in the new government.

It was this demand, supported by the Socialists and the small Republican Party, which resulted in the resignation early last week of Sig. Giulio Andreotti's minority Christian Democrat administration. Sig. Andreotti has again been asked by President Giovanni Leone to try to form a new government and he concluded today his preliminary round of consultations with all the opposition parties.

The keynote speech at the Communist Party meeting will be made by the Secretary-General, Sig. Enrico Berlinguer. His recommendations are likely to influence decisively the deliberations of the central committee, since any alternative would inevitably be a serious undermining of the party leadership.

Sig. Berlinguer's immediate problem is that the Christian Democratic leadership appears to be immovable in its determination to resist Communist demands for direct participation in the next administration. But Sig. Andreotti for one has been hinting at possible areas for compromise.

All present indications suggest that a sizeable proportion of Christian Democrat backbenchers, indeed almost certainly a majority, would resist bringing Communists into the next cabinet. Most would prefer fresh elections in the hope of widening somewhat their Party's 4 per cent lead over the Communists in terms of the popular vote in the inconclusive mid-1976 poll.

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Greek-U.K. talks on EEC accession

BY MARTIN DICKSON

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Hanoi talks all as Cambodia etaliates

Richard Nations
BANGKOK, Jan. 25.
TNAM today combined forces of major aggression by Cambodian forces with another level of aggression by the war through negotiations, and Hanoi, monitored here, made late last night that four allons of Cambodian forces penetrate up to eight kilometers into Vietnam's coastal province of Kieng Giang in an attack last Saturday night around the small town of Ha Tien.
The broadcast also reported that until two days ago Cambodian forces were dug in inside Vietnam at seven different places along an 80-kilometre stretch of the running from the coastal province of Ha Tien up to An Giang province, a Vietnamese district south of Phnom Penh.
The addition of the report claimed that the Cambodian forces were probing and probing along the border as far as Tay Ninh and Son provinces, north of Ho Chi Minh City (Saigon).
The report of "escalating aggression" by the Cambodians followed by a renewed call to negotiate and preserve the historic friendship of the Vietnamese and Cambodian peoples.
The call was reiterated in a press conference in Hanoi today by Foreign Minister, Mr. Nguyen Thieu.
Observers noted that a high official repeated none of the harsh warnings of the Cambodian consequences of Vietnam would inevitably have to face that have been common in recent Radio Hanoi commentaries.
Observers here cast some doubt on Vietnam's reports of multiple battalion-sized operations by Cambodian forces. This would indicate that the Cambodians have either regrouped or moved up reserves at a far faster rate than independent intelligence reports indicate. Although the Cambodians have undoubtedly been active, many observers here expect the next major military move to come from Vietnam.

omalia claims uban prisoner

JOHN WORRELL
NAIROBI, Jan. 25.
SOMALI GUERRILLAS of the Somali Liberation Front, fighting round Harar, said today to have captured Cuban troops fighting for the Ethiopians. They were killed, according to Mogadishu Radio.
But later, sources in Somalia said only one Cuban was captured. A soldier who is being held at Harar, northern Somalia.
This is the first real indication that Cubans are fighting with the Ethiopian forces.

Mulder takes over black affairs in South Africa

BY QUENTIN PEEL
JOHANNESBURG, Jan. 25.
MR. JOHN VORSTER, the South African Prime Minister, tonight announced his new Cabinet with the appointment of Dr. Connie Mulder, one of the highest political figures in the National Party, as the senior Minister in charge of relations with the country's black population.
At the same time, he promised to scrap the word "Bantu" from the titles of the ministries concerned with black affairs, and heralded "numerous improvements" in the system of black education.
Mr. Vorster's announcement is his first major initiative since he was returned with an overwhelming majority in the November general election.
The reshuffle creates a new seat in the Cabinet by elevating Bantu Education to a full Cabinet portfolio. The job goes to Mr. Willem Kruger, the former Deputy Minister of Bantu Administration. Dr. Mulder gets the top job of Ministers of Education and Development.
Neither of the two new ministers dealing with black affairs was regarded as an innovator, although Dr. Mulder is an ambitious and forceful man. As chairman of the National Party

Bhutto speaks at closed trial session

By Simon Henderson
ISLAMABAD, Jan. 25.
IN A CLOSED session of the Lahore High Court, the former Prime Minister of Pakistan, Mr. Zulfikar Ali Bhutto, gave his final statement today in the trial where he is accused of ordering a political shooting three years ago.
No reason was given why the hearing was in camera. Mr. Bhutto's readiness to speak to it was not seen as being a reversal of his previous decision to boycott the trial.
During cross examination yesterday which had continued today, Mr. Bhutto replied to each question with a simple reference to his boycott, only adding more when he considered the question did not pertain directly to his defence.
The in camera session lasted about two hours before Mr. Bhutto was taken back to the prison just outside Lahore, where he has been held on charges since his arrest last September.
Mr. Bhutto had started his boycott of the trial two weeks ago after his latest petitions challenging the fairness and jurisdiction of the bench were rejected.
Squads of police were on duty as usual outside the court today but there was no trouble. The court is now adjourned until Saturday.

Indian experts upset by Callaghan's river plan

BY K. K. SHARMA
NEW DELHI, Jan. 25.
MR. JAMES CALLAGHAN'S offer to help develop and harness the rivers in the eastern region of the Indian sub-continent has led to sharp protests from experts of the Ministry of Irrigation, who feel that the proposal is presumptuous. In a note to the Government, the experts have pointed out that the British do not have the experience of the kind of civil engineering projects on the scale required. They say Indian engineers have been executing them for more than two decades.
Mr. Callaghan's proposal, made during his recent visit to New Delhi, has not been favourably received here even by the Government.
The main reason for the cold response to the proposal is that the Indian Government is reluctant to internationalise what it considers to be a matter to be settled bilaterally by India and Bangladesh. The move is in the context of the recent agreement between the two countries on sharing of the Ganges water for five years, during which both have agreed to try and find a long-term solution to the problem.
The problem can be settled by increasing the flow of the Ganges and the Indo-Bangladesh Joint Rivers Commission is now meeting in Dacca to devise ways to do this. The issue is a complicated matter since Bangladesh is in favour of building storage reservoirs upstream which would help of Nepal, from which turbulent rivers start and cause considerable damage. India on the other hand, favours building a canal to divert the waters of the Brahmaputra in northeast India into the Ganges.
Both are gigantic projects that neither India nor Bangladesh are likely to have resources for but India is keen to first settle the matter with Bangladesh both in regard to the acceptability of projects as well as on how they should be implemented before bringing other countries into the picture.
Mr. Callaghan's proposal — and a similar proposal made by President Jimmy Carter when he visited here earlier — could prove to be embarrassing because it gives the issue an international character that India wants to avoid. The Government does not favour inclusion of even Nepal in the talks to settle the issue.

Bahrain dollar dealings suspended

THE BAHRAIN and Qatar monetary agencies yesterday suspended spot and forward dealings in the dollar but gave no explanation for the decision, Richard Johns writes.
Foreign exchange dealers in the City, however, believed that the two authorities, together with the United Arab Emirates Currency Board, may be co-ordinating in freezing transactions so that they can reappraise the value of their currencies against the depreciating dollar. Hitherto, all of them have allowed fluctuations within a narrow margin according to different formulae.
Limited dealings were reported to have taken place in the UAE where — despite the fall in the value of the dollar — thinking has been that anything overvalued by the liberal English-language press reduction of the help of Nepal, from which turbulent rivers start and cause considerable damage. India on the other hand, favours building a canal to divert the waters of the Brahmaputra in northeast India into the Ganges.
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Japan to store oil in tankers

The Japanese Government is appropriating the equivalent of \$500m. for the first step of a project to store crude oil on tankers that otherwise would be idled by the recession according to the Asahi Shimbun, AP-DJ reports from Tokyo.
The funds will be used to purchase 31.5m. barrels of oil for the floating depots, which will be moored at Government-designated coastal sites.

World Bank talks

Mr. Robert McNamara, the World Bank president, completed his Kuwait visit yesterday with Mr. Abdul Rahman Atiq, the Finance Minister, on a mission to increase Kuwait's contribution to help the bank meet its financial commitments toward developing countries, AP-DJ reports.
The two discussed ways to restructure the economy of Egypt.

Aid for Bangladesh

Britain will give Bangladesh £12m. and 15,000 tons of wheat under three agreements signed in Dacca yesterday, Reuters reports.

ON OTHER PAGES

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Farming and Raw Materials:
Australian agriculture conference 30

Sober Egyptian mood aids U.S. bid to resume peace talks

BY ROGER MATTHEWS
CAIRO, January 25.
THE U.S. continues trying to find a formula that would enable peace talks between Egypt and Israel to be resumed.
Mr. Henry Kissinger, the U.S. Secretary of State, said yesterday that the Israeli cabinet seems to be a reassessment of public stances. The Egyptian Press was rather more restrained in its commentaries this morning, refraining from again describing Mr. Begin, the Israeli premier, as a "Shylock," an expression coined in Jerusalem as "anti-Semitic."
Frustrated as a result of this "moderation" the Israeli cabinet is expected to approve on Sunday the resumption of the joint military committee talks with Egypt. Its main purpose will be to provide public evidence that negotiations are continuing while the hard political bargaining is done via the good offices of the U.S.
Reuters reports from Damascus: The Syrian Government newspaper Tishrin today accused the U.S. of exerting strong pressure on Syria to break the Arab League. The paper also criticised calls for Arab solidarity being made by some Arab countries, but did not name them. It implied that calls made by Saudi Arabia, Kuwait and some other Gulf States were really aimed at bolstering Mr. Sadat's position.

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Lebanese Christians want action on arms

By Ihsan Hijazi
BEIRUT, Jan. 25.
LEBANESE Christians leaders charged today that arms have been pouring in to Palestinian guerrillas through the southern port of Tyre and demanded action by the authorities to stop it.
Former President Camille Chamoun, who heads the Christian coalition known as "the Lebanese Front," declared that the front possessed full information about the ships which have delivered the weapons.
Mr. Pierre Gemayel, leader of the Phalange Party, Lebanon's principal rightist organisation, said that it was not fair that the Palestinians should continue to receive weapons while Christian militiamen were deprived of their arms.
Palestinian sources did not comment on the charge merely saying that this was part of the rightist propaganda.
Tyre, which is about 12 miles north of the Israeli border, is virtually under control of the Palestinians and their Lebanese allies.
The rightist accusations came as artillery duels continued today in southern Lebanon after yesterday's fighting at the village of Blat close to the Israeli border. They also came as an attempt to break out between Christian and Moslem leaders about the future political system for Lebanon.

Notice of Redemption To the Holders of KINGDOM OF DENMARK

9% Twelve Year External Loan Bonds of 1970 due March 1, 1982

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Bonds of the above-described issue, Morgan Guaranty Trust Company of New York, as Fiscal Agent, has selected through operation of the Sinking Fund for redemption on March 1, 1978 at the principal amount thereof together with accrued interest to the date fixed for redemption \$2,000,000 principal amount of said Bonds bearing the following distinctive serial numbers:

COUPON BONDS OF \$1,000 EACH									
M 6	1297	2578	3898	5125	6357	7583	8788	9884	10776
11	1297	2578	3898	5125	6357	7583	8788	9884	10776
12	1297	2578	3898	5125	6357	7583	8788	9884	10776
13	1297	2578	3898	5125	6357	7583	8788	9884	10776
14	1297	2578	3898	5125	6357	7583	8788	9884	10776
15	1297	2578	3898	5125	6357	7583	8788	9884	10776
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33	1297	2578	3898	5125	6357	7583	8788	9884	10776
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AMERICAN NEWS

Runaway options boss held by FBI

By John Wyles

NEW YORK, Jan. 25. THE runaway president of Lloyd Carr and Co. the Boston-based commodities options firm, was captured by the FBI in Florida this morning.

Mr. Alan Abrahams, who had run his business under the assumed name of James Carr, is wanted by a number of federal and state authorities on charges ranging from escaping from the state penitentiary in New Jersey to violating a court order to cease the fraudulent selling of commodities options traded in London.

Lloyd Carr's assets have been placed in the hands of a receiver and its records covering the 18 months during which it was in business from July, 1976, are being studied by federal officials. The company's attorney, the celebrated F. Lee Bailey, told a federal court in Boston yesterday that it had done between \$25m. and \$27m. of business in the last 12 months. In addition, the CFTC filed an affidavit revealing that in the past two months Abrahams had deposited \$1.67m. of the company's money into a personal account at a Bermuda bank.

See recommended, Page 30

Quebec courts not confined to use of French

By Robert Gibbens

MONTREAL, Jan. 25.

M. JULES DESCHENES, the Quebec Chief Justice, has ruled that a section of the French Language Charter (Bill 101), proclaiming that French is the sole language of the courts in the province, is unconstitutional.

The superior court justice declared in favour of a challenge by three Montreal lawyers to Chapter three of the Charter which was passed into law by the National Assembly last autumn.

The judge said the Charter is unconstitutional because "it directly contradicts Article 133 of the British North America Act, Canada's constitution. This says either French or English can be used by any person in the Parliament of Canada, the Quebec Legislature (now known as the National Assembly) and in the courts of Canada and Quebec. Chief Justice Deschenes said: "We must not forget that Article 133 was the fruit of a political decision. If one of the parties wants to amend it, it is through the same process that it must do so."

The Attorney-General of Quebec tried to obtain a constitutional modification through a judicial interpretation, but the court cannot accept this limitation.

"Nothing would justify the court in squeezing the texts in order to extract a meaning that their authors never intended. The court must set aside a law (Chapter three of the Charter) which unilaterally repeals a reciprocal constitutional guarantee that no-one had placed in doubt for a century."

Later, M. Marc-Andre Bedard, the Provincial Justice Minister, instructed his lawyers to appeal against the superior court decision. This would normally be in the Quebec Court of Appeals or it could go as far as the Supreme Court of Canada. The Government still believes in its own case for official bilingualism.

Argentina turns down Cape Horn decision

By Robert Lindley

BUENOS AIRES, Jan. 25.

THE ARGENTINE Foreign Minister, Admiral Oscar Montes, called in the Chilean ambassador and British chargé d'affaires, to notify them officially of the Argentine decision to declare null and void the Beagle Channel arbitration decision which awarded the straits to Chile, over-riding an Argentine claim.

The British Crown had acted as arbitrator in the dispute at the request of Argentina and Chile. Late last night, the Chilean regime postponed the second part of summit talks between the Argentine President, Gen. Jorge Videla, and the Chilean President, Gen. Augusto Pinochet, originally scheduled for tomorrow in Chile, until an unspecified date. A Chilean government statement said that a more "detailed analysis of matters under examination" is required.

At the summit meeting, which began at Mendoza, Argentina, a week ago, the two presidents were expected to ratify a formula which in effect would freeze the Beagle Channel dispute for at least six months while experts from the two countries study the impasse. The Pinochet regime immediately accepted the decision but now may withdraw its acceptance by way of reaching a status quo agreement with Argentina. The three-man ruling Argentine military junta met this morning unexpectedly to discuss the Beagle Channel dispute, and Chilean army generals called on Gen. Videla to tell him of the Chilean regime's need to postpone the second round of summit talks.

Investment in S. Africa 'should be discouraged'

BY DAVID BELL

WASHINGTON, Jan. 25.

THE CARTER ADMINISTRATION should take active steps to discourage further U.S. investment in South Africa because existing investment has strengthened apartheid, a Senate committee report concluded today. This is the key recommendation contained in a long study of U.S. corporations in South Africa, published today by the Senate Foreign Relations Sub-committee on Africa, headed by Senator Frank Church. It follows lengthy hearings on the subject by the sub-committee.

Specifically, the report calls on the Administration to withdraw U.S. Export-Import Bank credits from export deals with South Africa to withdraw the U.S. commercial presence in the country and to ban all future visits to the country by U.S. trade promotion officials.

Meanwhile, Senator Clark said the U.S. should also deny tax credits to U.S. companies paying South African taxes, if they have failed to act in ways consistent with U.S. policy. Also, the Administration should no longer endorse groups, like the U.S.-South African Chamber of Commerce, which defend U.S. investment in South Africa, unless and until they support fair employment practices. Sen. Clark said that the aim of the new policy should not necessarily be to get U.S. corporations to withdraw from South Africa, but rather to "foster specific and meaningful changes in the role which U.S. corporate interests have traditionally played in South Africa."

The report concludes that, up to now, U.S. companies have been a key force in helping the

South African regime to maintain apartheid and that, for the most part, "U.S. corporations operating in South Africa have made no significant impact on either relaxing apartheid, nor in establishing company policies, which could offer a limited but nevertheless important model of multinational responsibility. "Rather, the net effect of American investment has been to strengthen the economic and military self-sufficiency of South Africa's apartheid regime, undermining the fundamental goals and objectives of U.S. foreign policy."

The report puts the book value of U.S. corporate investments in South Africa in 1976 at \$1.66 billion, or 37 per cent. of total U.S. investment in Africa. Total U.S. trade with South Africa stood at \$1.3bn. in 1976.

U.S. interest rates stay high

BY JOHN WYLES

NEW YORK, Jan. 25.

UPWARD PRESSURE on U.S. interest rates is being sustained by a generally negative reaction by the credit markets to President Carter's budget proposals and fears of unduly ambitious Treasury financing plans.

Bond prices have been in a steady slide for the past seven weeks. A clear indication of the market's problems was given yesterday when the European Atomic Energy Community postponed its first public financing in the U.S. because of interest rate levels. Euratom had been looking to sell \$75m. of 20-year bonds. Short-term interest rates are touching their highest levels for some three years. Three-month Treasury bills, traditionally the least risky form of short-term investment, have been selling at yields close to 6.9 per cent., while long-term Treasury issues have lost two points in trading so far this year and are offering yields over 8 per cent.

Against this background, nervousness has been increasing over the last few days about the Treasury's plans to make on the credit markets. These will be announced later today and should indicate whether the Treasury is accepting advice from conservatives on Wall Street who are arguing that the market could not cope with demands for more than \$1bn. on top of a \$5bn. refinancing of notes which are due to mature next month.

Elsewhere, however, analysts are suggesting that now would be a good time for the Treasury to make some intermediate and long-term issues as part of its financing of the Government's budget deficit. "We think the appetite for intermediate and long-term bonds is strong," said Mr. Victor Chang, head trader at Goldman Sachs, this morning. He thought that the Treasury could probably raise \$3-4bn. of new money on top of its refinancing exercise without causing further damage to the market.

More generally, the credit markets have been depressed by the size of the deficit projected in President Carter's budget statements and by some elements in the testimony given yesterday by the President's nominee for chairman of the Federal Reserve Board, Mr. G. William Miller.

According to Mr. Alan Lerner, a vice-president at Bankers Trust, Mr. Miller was thought to have put more emphasis at his confirmation hearings on tackling unemployment than inflation and "this adds to the lack of confidence felt in not having Arthur Burns around to take care of the money supply." One of Dr. Burns's last acts before his retirement as chairman of the Fed next week was to raise key short-term interest rates as part of the bid to stabilize the dollar in world markets. The money markets are not too confident about the success of this approach.

Foreign acquisitions increase

BY STEWART FLEMING

NEW YORK, Jan. 25.

FOREIGN corporations announced 274 investments in U.S. manufacturing in 1977, the highest total since the conference board started compiling such data in 1968, the business research organisation announced. The Conference Board said that dollar figures reported for 130 of the investments totalled \$2.9bn.

The figures show that New York attracted more manufacturing investments (45) than any other state, followed by New Jersey and California with 30 each. West Germany accounted for

53 of the foreign investments last year, up from 39 in 1976. Canada made 49 investments, down from 62, and the United Kingdom made 37, virtually the same as in 1976. The sharp increase in foreign investments last year was due to a surge in acquisitions of U.S. companies. Half the investments (137) involved the acquisition of existing firms and plants, an increase of one-fifth over the figure in 1976. About one-third represented the construction of new facilities, the remainder expansion of existing facilities.

Mr. David Bauer, the Conference Board economist, identified the weakness of the dollar and the stock market as factors in the increase, but said that a more fundamental reason was the desire of foreign firms to acquire U.S. technology, managerial and administrative experience. He said that this is reflected in the number of take-overs where U.S. management was retained. He added that the foreign firms also believe that growth in the U.S. will be more rapid than in other major countries over the coming years.

Saudi oil output expansion

BY OUR OWN CORRESPONDENT

WASHINGTON, Jan. 25.

SAUDI Arabia is prepared to produce about 12m. barrels of oil a day by the mid 1980s, but has no plans to expand output beyond that, Mr. James Schlesinger, the U.S. Energy Secretary, said last night.

Mr. Schlesinger, who was speaking on his way home from a week-long trip to Saudi Arabia, said that this projected increase in Saudi output would have off an immediate oil supply crisis in the early 1980s. But, thereafter, demand would rapidly outrun supply unless steps were taken now to reduce consumption.

He conceded that it would be possible for the Saudis to push up production a further 2m b/d to 14m. b/d but he said that the Saudis have not yet decided to do that. It would be foolish to plan on the assumption that they will do so or that, if they were to, even that would be enough to ensure adequate oil supplies towards the end of the next decade.

The Secretary's use of the Saudi figures is a further attempt by the Administration to push home the message that the U.S. must pass an effective energy bill that will begin to reduce consumption, along the lines of the one proposed by the Administration which is still hopelessly stuck in Congress.

Mr. Schlesinger said that, if Congress fails "to pass the energy bill and he predicted a workable compromise on the natural gas price, then the Administration would have no alternative but to impose some sort of tax on imported oil. But he insisted that this was not being "planned" at the moment. While the Secretary's optimism about the natural gas compromise is not shared on Capitol Hill, it is clear that even if it is achieved, the issue of the proposed tax on domestically produced oil to bring it to the world price will prove more controversial and much more contentious than the natural gas part of the Bill. Many observers believe that the Senate will ultimately prove unable to agree on the tax part of the Bill, which would effectively doom it to extinction.

Mr. Schlesinger noted that some Congressmen were still relying on the Saudis to go on increasing production indefinitely, to as high as the 20m. b/d level that would theoretically be possible for them to maintain for a short time. But he said it was unlikely that the Saudis would ever authorise the kind of investment to achieve that volume of production, if only because they wish to husband their reserves. These he estimated at 100bn. proven barrels and perhaps 75bn. more "probable" reserves.

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Australia may boycott EEC goods

CANNBERRA, Jan. 25.

A LEADING farm industry official warned today of a possible boycott of EEC products such as cars and farm machinery amid mounting criticism of Community trade barriers to Australian exports.

Sir Samuel Burston, president of the Australian Woolgrowers and Graziers' Council, said only a tough stance, with the possibility of retaliatory measures, would convince EEC countries that Australia was serious in protesting against Western Europe's trade restrictions.

According to qualified sources in Canberra the Government was considering a threat to buy products elsewhere in the next year if the EEC continued its policy of maintaining barriers to Australian exports.

A number of major trade deals are due to be finally negotiated in the next 12 months including the award of multi-million dollar contracts for replacements for Australia's ageing Mirage jet fighter squadrons and domestic aircraft. The sources emphasised that the sources emphasised that European and American aircraft manufacturers are in strong competition to win the lucrative contracts.

British steel tube manufacturers are asking the European Community Industrial Commission to control lower-priced tube imports from countries outside the community, AP/DJ reports.

No big changes needed in Lome pact, says Hart

By Chris Sherwell

RENEGOTIATION of the Lome Convention will involve making additions and refinements to improve it rather than a revolutionary change of substance, Mrs. Judith Hart, the U.K. Minister of Overseas Development, said yesterday.

Mrs. Hart was giving evidence to the House of Commons Select Committee on Overseas Development, which last week urged the British Government to produce a coherent trade and aid policy that took a global view of the problems besetting poor countries.

The Lome Convention governs trade relations between the United Kingdom and 14 other European countries and covers export earnings and co-operation in industrial, financial and technical matters for the nine member states of the EEC and 52 African, Caribbean and Pacific (ACP) countries. Renegotiation is due after five years in 1980.

Mrs. Hart said also that she did not see the convention being extended to other countries, for example in Asia, because other member states cherished too deeply the "special relationship" they had with the ACP and especially the France-oriented countries.

A change in this direction would not be a political reality in the next decade, she added. It was, therefore, important to extend trade and aid assistance to Asian countries.

U.K. scheme to develop new markets

Financial Times Reporter

DETAILS OF a scheme designed to help smaller and medium sized firms with the financial risk and financing associated with the development of new export markets were announced yesterday. To be known as the Market Entry Guarantee Scheme (MEGS), it will be operated on an experimental basis for two years by the British Overseas Trade Board.

There are no limits on the size of company which may apply but the maximum contribution to any one project is £50,000. The scheme is open to firms of all sizes over a maximum period of five years. There is also a minimum contribution of £20,000 to any one project.

Under the scheme a company will receive 50 per cent. of eligible costs of the venture in return for a levy on sales receipts in the overseas market. If sales do not materialise as expected, the levy payments stop at the end of the agreed recovery period. For this potential loss the company pays an annual premium of 3 per cent. of the potential scheme contribution.

The reorganisation comes as a climax to several months of bitter argument inside the Administration and after some years of criticism of the Central Intelligence Agency. But the order was not welcomed by many of the groups which have criticised the CIA in the past because, they said, it effectively gives the agency unprecedented powers to monitor the activities of U.S. citizens.

The new organisation of the intelligence community also strengthens the hand of Adm. Stansfield Turner, the Rhodes scholar who was brought in by the Carter Administration to take over the CIA in the wake of the various domestic and foreign scandals which plagued it in the past few years. Adm. Turner has been very unpopular inside the CIA for the brusque way in which he has moved to dismiss several hundred veteran employees.

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Britain looks at oil swap proposal from Venezuela

BY RAY DAFTER, ENERGY CORRESPONDENT

THE BRITISH Government is considering a suggestion that light crude oil from the North Sea supply arrangements already have should be exchanged for heavy oil from Venezuela.

Dr. Valentin Hernandez Acosta, the Venezuelan Minister of Energy and Mines, expressed renewed interest in such swap arrangements during a British trade mission to Venezuela last week.

Although detailed proposals have yet to be received by the British Government, Dr. Dickinson Mabon, Secretary of State for Energy, has said the proposals would be seriously considered in London.

Much would depend on the amount of heavy oil Venezuela would be prepared to offer. The heavy oil has a lower value than North Sea crude. As a result, Venezuela would have to compensate for this disparity either with higher volumes or with some other monetary or trade adjustment.

The British Government is a long way from being committed

to the swap suggestion, however. It could lead to complications for oil companies which already have supply arrangements.

But it is recognised that there could be at least two benefits.

First, a swap deal would provide greater security of supplies. The heavy oil was taken in the next 18 months, it would effectively make the U.K. energy self-sufficient sooner than expected.

Second, an agreement might pave the way for trade deals between the U.K. and Venezuela. The Venezuelan Government is seeking a greater foothold in the heavy oil market. British exports are running at about £200m. a year. The British Embassy in Caracas hopes this will double in the next three years.

It is known that U.K. companies are in the running for a major part of a steel mill construction in Zulia. Tenders have been invited for the construction of the first stage of the project, a facility costing \$750m and able to produce 1.1m tonnes of liquid steel a year.

Davy International is leading one international consortium bidding for the work. Ashlow Steel Engineering, part of the Brierley Group, is a member of another potential contracting consortium.

Officials of the Department of Industry and Energy yesterday emphasised the potential for Venezuelan contracts in a number of industrial sectors. The offshore supplies industry, including companies with deep water drilling expertise, has been among those discussing work in the oil industry. It is thought the Venezuelans might use U.K. expertise in seismic surveys, geophysical studies, drilling vessels, and the construction of supply bases, for instance.

Iran plans floating gas terminal

BY ANDREW WHITLEY

TEHRAN, Jan. 25.

A LETTER of intent which is expected to be signed in mid-February will pave the way for one of the world's first floating liquefied natural gas terminals, off Bushire in the Persian Gulf.

An agreement for the construction of the terminal, worth more than \$500m, is likely after the visit of Mr. Knut Frydenlund, the Norwegian Foreign Minister, in the first week of February.

Columbia Gas Company of Delaware will import the gas into the U.S. The deal is subject to the approval of the Federal Energy Regulatory Commission. A major obstacle could be the inclusion of a price escalation clause, linking the gas price to that of OPEC oil.

Informed sources say secret agreement was reached on the price of the gas at a meeting in Washington last week between representatives of the three companies. Japan would import the gas.

Final agreements on both projects are not expected until the approval of the Japanese and American authorities—possibly in September in the latter case. The Tehran Journal says a go-ahead for the Pars LNG projects will be the first real movement in Iran's ambitious LNG plans for 15 months. Two earlier export deals, with El Paso of the U.S. and a European consortium, the Elf-Eram of France, fell through after the letter of intent stage.

The Iranian side is understood to have lost interest after cost escalations and what they felt was the uneconomically low price of gas on the world market on the same day by Japanese, kct.

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The Iranian side is understood to have lost

GLASGOW
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HOME NEWS

Skateboard craze harming cycle industry

Financial Times Reporter

THE SKATEBOARD craze has helped to reduce British cycle sales by 10 per cent. last year. One cycle maker, the Birmingham-based Dawes Cycles, is holding urgent talks to avert closure.

Mr. Ian Phillips, chief executive of Raleigh Industries, said yesterday in Coventry, birthplace of the bicycle, that only 10 per cent. of the bikes sold last year were sold last year. Mr. Phillips said at the annual meeting of the Bicycle Association, of which he is president, "There was, of course, a decrease in purchasing power but there was concern in the trade when £20m. was spent on skateboards. This was equal to about 300,000 cycles and components. However, this skateboard following lasted under two years in Australia. Britain might be helped in this situation by its weather and the lack of skateboarding facilities. There were two bright spots—cycle imports fell by 30 per cent. to the lowest level for three years, and exports last year exceeded £46m., a 21 per cent. increase.

The Dawes Board is trying to find lockers willing to put in up to £300,000 to state of collapse and save 100 jobs. Meanwhile, a temporary employment subsidy worth about £20 a head has been granted. This runs for three months and can be renewed. Dawes Cycles, which has a turnover of £2m. a year, was badly hit by a fire nearly three years ago.

The financial position began to deteriorate and further disruption to production was caused by the October strike at British Oxygen, which supplies gases for brazing.

In addition, autumn and Christmas sales were hit by the skateboard craze. The workforce has already been reduced by about 30.

Almost all Dawes 40,000 output goes to the home market, and since the fire the range has concentrated on hand-built sports cycles.

Dawes Cycles was founded in 1925 by the grandfather of Mr. Richard Dawes, the chairman.

Bid to stem Speke decline

BY RHYD DAVID, NORTHERN CORRESPONDENT

BRITISH MIDLAND Airways, the independent airline group, is asking British Airways to accept it as joint operator on its services out of Liverpool or to hand over its route licences to enable business at the city's Speke Airport to be re-established.

The move is being made against a background of continuing decline at Speke now down to only four scheduled destinations—London, Dublin, Isle of Man and Belfast—and which in the financial year to March 31 will see total traffic almost halved from the peak figure of 550,000 reached in 1973.

Total losses in the financial year at the airport will amount to £1.7m., bringing to £6m. the overall deficit paid for out of the rates in the past four years.

The proposal by British Midland, which already operates an extensive network of internal U.K. flights and Continental

Fringe benefits cut by Bank of England

BY MICHAEL BLANDEN

FRINGE BENEFITS offered to staff of the Bank of England have been reduced after comments made in the report of the Commons select committee on the nationalised industries more than a year ago.

The changes made so far affect the scheme for providing loans for education of children of the Bank staff, where conditions were tightened at the beginning of last July. They came after a joint working party with the unions.

A similar working party has been set up to examine the Bank's cheap housing loans for staff. It is not expected to report until later this year and is spending much of its time trying to simplify a scheme which has become very complex over the 30 years of its existence.

Mr. George Blunden, a director of the Bank, said yesterday in further evidence to the Committee that while staff had agreed to examine the fringe benefits, they were also seeking other benefits offered by the clearing

banks such as insurance, profit sharing and cars for senior staff. It was understood that the Advisory Conciliation and Arbitration Service would refer this issue to the central arbitration committee.

Two major changes had been made to the educational loan scheme. The amount available had been reduced by linking it to half the cost of education at a day school rather than a boarding school. This had the effect of cutting the amount for each family with two children by £3,000.

The interest rate charged has been put up to 5 per cent. under the Bank's base rate, with a minimum of 5 per cent.

For most of the past year, the minimum had ruled with the generally low level of rates. It compared with a previous rate of 3 per cent. and, sometimes, 1 per cent.

Mr. Blunden, commenting on the house loan scheme, said that on October 31 there was a total of 4,193 borrowers, more

than half the Bank's total staff, with an average amount outstanding of £9,600.

The loans attracted an interest rate of 2½ per cent. on the first £6,200 and at 2 per cent. above that amount.

It was also disclosed that the Bank's canteen, where the Bank paid overheads and staff costs, cost it between £1m. and £1½m.

Mr. Gordon Richardson, Governor of the Bank, giving evidence to the sub-committee headed by Sir Donald Kaberry, asserted the importance of the planned new legislation to establish a licensing system for deposit-taking institutions in the U.K. He stressed particularly the need for the proposed deposit protection fund.

He drew attention to the extensive improvements already made to the Bank's supervisory system and after last week's evidence on the fringe bank crisis, a short history of the development between the 1950s and the late 1960s, which formed part of the background.

CBI seeks pledge on profits

BY OUR INDUSTRIAL EDITOR

CBI LEADERS yesterday urged organised some time ago, to stress that they were concerned not to amend or abolish their profit safeguards which are being abolished by the Government's statutory price controls.

They took the opportunity of a luncheon with Mr. Hattersley, John Melville, CBI director

general and Mr. John Greenborough, the new CBI president, that they would be consulted before any changes were made.

The safeguards affect the Government's ability to freeze prices during and after a Price Commission investigation.

All the conditions of his work for the company emphasised that relationship.

Mr. Chaplin could please himself what hours he worked within the geographical limits of his agency. His conditions of appointment contained no reference to annual leave. He took this when he wanted it.

All that was in contradiction to the finding of the courts.

The hearing continues.

'Agent, not employee' claim

AUSTRALIAN Mutual Provident Society, of Adelaide, an insurance company, said on the second day of its appeal to the Privy Council in London yesterday that Mr. Lancelotti John Chaplin was not its employee, as he claimed, and as was laid down by South Australian courts, but an agent.

Mr. Chaplin, of Salisbury, South Australia, was awarded \$45,000 by the South Australian Industrial Court. An appeal by

the company was rejected by the State's Supreme Court. Both courts said that he was entitled to the money in lieu of long service leave.

Mr. Trevor Morling, QC, for Australian Mutual, said yesterday that Mr. Chaplin's conditions of appointment contained a clause that "the relationship between the society and yourself is that of principal and agent and not master and servant."

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Five-year plan completed by NEB

BY MARGARET REID

THE NATIONAL Enterprise Board has completed its strategic plan for the five years to 1982, apart from the important section dealing with British Leyland.

The plan indicates approximately the needs in each year to carry out what the Board hopes to do in the sectors of the economy with which it is particularly concerned.

Separate amounts are being allotted annually to meet the needs of smaller companies, in which the Board has invested, or which it may back in the future.

The plan was approved by the Board and submitted to Mr. Eric Varley, Industry Secretary, shortly before the new year.

It appears possible that the Board could need more Government cash than the £275m. which has been taken as the likely requirement for the 1978-79 financial year.

It is known that the NEB, set up in 1975 to increase the State's participation in profitable industry, is interested in developments in the power station boiler industry.

There have been talks about a possible set-aside between Clarke Chapman, part of Northern Engineering Industries, the boiler business of Babcock and Wilcox, and the NEB, on the basis that the latter would put up cash.

There have been signs that, in addition to computer services, telecommunications, office equipment and construction, the NEB has shown interest in the development of other sectors.

These include hydraulics, and pumps and valves. The future of a sector of conductors remains a subject of great interest.

State offices 'growth scandal'

THE "SCANDALOUSLY" extravagant expansion of Government offices in Scotland was attacked yesterday by Mr. Malcolm Bruce, deputy chairman of the Scottish Liberal Party.

Yesterday, he published the text of a letter from Mr. Peter Shore, Environment Secretary, confirming that the Department had leased a total of 990,000 square feet of new offices in Edinburgh, Glasgow, Dundee and Aberdeen in the past four years.

High Court studies tanners' challenge

A PRIVATE hearing began in the High Court yesterday to decide whether an action aimed at challenging the National Enterprise Board's £5m. investment in a leather tanning company can go ahead.

The Board is asking Mr. Justice Forbes to strike out an action launched last year by 18 other tanning companies who object to the Board's investment in British Tanners, which consists of the tanning business formerly part of Barrow Hebburn Group. British Tanners is now jointly

Councils attack delays at car licence centre

BY JOHN LLOYD

LOCAL AUTHORITIES yesterday criticised strongly the Driver and Vehicle Licensing Centre in October, 1977. All the complaints for delays in processing licences were the fault of the Swansea centre.

The councils say that they are losing increasingly large sums of money on excess parking fees, because the centre does not provide the name and address of the drivers of offending vehicles within the six-month period in which the fees may be collected.

Miss Shelagh Roberts, chairman of the planning and transportation committee of the Association of Metropolitan Authorities, said: "The cost can be quite substantial, not just in lost charges, but in officers' wasted time."

"The problems we have in enforcing parking regulations because of delays at the Swansea centre can lead only to the law being held in contempt by the public."

Some councils claim that they are writing off growing numbers of parking tickets because of lack of information. The London Borough of Waltham says it has dropped 416 excess charges notices, while Manchester has written off 1,000 out of the 20,000 issued in the first ten months of 1977.

The London Borough of Croydon claims that written-off tickets have jumped from 4.5 per cent. of the total issued in day criticised strongly the Driver and Vehicle Licensing Centre in October, 1977. All the complaints for delays in processing licences were the fault of the Swansea centre.

The centre said yesterday that the delays were caused by the transfer over the past year of information about vehicle registration from the old paper files, which used to be handled by 183 different licensing authorities, on to magnetic tape.

Transfers have been running at the rate of 500,000 a month. However, where an inquiry is received by the centre on vehicle ownership where the date of the alleged offence precedes the date of transfer, the centre must refer back to the old files.

The rapid rate of transfer means a comparatively high rate of such referrals. In such cases, the centre says it cannot guarantee details under three months.

The centre has almost 18.5m. vehicles registered on tape; only 500,000 remain to be transferred. After that delays would tail off and disappear.

The association is to set up a study group to make a survey of the help by public sector bodies. The study group will consider problems associated with the identification, release and development of non-operational publicly-owned land, how these problems can be resolved.

Mr. Alexander Irvine, for the Government of Singapore, said that he had applied for Mr. Tarling's extradition because they were concerned at the way he and others exercised their trusteeship of Haw Par.

There was also concern about the way they had discharged their duty of disclosure to shareholders and their duties to the public.

Four charges relate to the affairs of Spyrar Securities, a share investment company.

The fifth charge relates to the formation and conduct of Melbourne United Trust, a company which carried a penalty of more than 12 months jail, said Mr. Irving.

Mr. Tarling is challenging a charge relating to an offer made in 1974 by Haw Par to acquire the remaining issued stock units of Motor and General Investment Holdings.

A lawyer for Mr. Tarling said yesterday that after the Law Lords had decided the appeals, Mr. Tarling would consider petitioning the Home Secretary to stop his extradition.

The hearing continues to-day.

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Detainees protest

By Giles Merritt

EIGHT former Ulster detainees, including one still wanted by his 1972 escape from Long Kesh disguised as a priest, appeared at a Provisional Sinn Féin Press conference in Dublin yesterday to protest against last week's Strasbourg verdict clearing Britain of torture.

The eight were among 14 men who received compensation after their admitted ill-treatment by the security forces after the August 1971 internment swoops.

Under the auspices of Sinn Féin, the IRA's political wing, they appeared yesterday to dispute the findings of the European Court of Human Rights that Britain had been guilty only of inflicting "inhuman and degrading treatment" on them.

Claiming that a "sixth technique—plain, old-fashioned physical brutality—had been used against them, they alleged that of the notorious five sensory deprivation techniques renounced last year by Britain, four were still used in Ulster.

Better combustion 'could save £600m. in fuel'

BY RAY DAFTER, ENERGY CORRESPONDENT

BRITISH industry could save cent. were well within reach and these savings could be £600m. on its annual fuel bills if it improved the combustion efficiency of boilers and furnaces, Dr. John Cunningham, Parliamentary Under Secretary of State for Energy, said yesterday.

Between 65 and 70 per cent. of Britain's annual energy consumption—330m. tonnes of coal equivalent—was used to raise steam, produce power or generate heat, he said.

A 1 per cent. improvement in combustion efficiency across the board could save the country 1.3m. tonnes of oil—about £80m. cash in the pockets of industry, commerce and the nation.

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NEWPORT

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مكتبة الأصيل

LABOUR NEWS

Strikes cost three times more lost days than in 1976

PHILIP BASSETT, LABOUR STAFF

LAST year resulted in more than three times as many lost working days as in 1976, according to figures published by the Department of Employment yesterday.

The number of lost working days in 1977 was 1,139,800, compared with 378,000 in 1976. The increase was due to a rise in the number of stoppages, from 2,016 in 1976 to 3,777 last year, and a rise in the number of workers involved, from 1,139,800 in 1976 to 1,139,800 last year.

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Legislation on pension schemes delayed

ERIC SHORT

Government still plans to use legislation to provide for pension schemes, but the bill, based on the Government's White Paper on Member Pension Schemes, has been delayed because of the Government's lack of an overall strategy for the Government's pension schemes.

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Scottish lorry drivers deal outside guidelines

BY NICK GARNETT, LABOUR STAFF

THE Road Haulage Association agreed yesterday a pay settlement for lorry drivers, but the settlement was outside the guidelines set by the Department of Employment.

The settlement, which covers 6,000 drivers but not directly many more whose pay rates are based on those of the Road Haulage Association, is calculated at an increase of just more than 9 per cent on basic rates.

South Wales miners cast votes on incentive bonus scheme

BY ROBIN REEVES, WELSH CORRESPONDENT

SOUTH WALES went to the polls yesterday to decide whether to support the National Union of Mineworkers' proposal for an incentive bonus scheme.

The poll takes place against a background of some bitterness between local miners' leaders at what they regard as aggressive campaigning by the Coal Board and the media for the new scheme.

Last chance for Swan Hunter

BY CHRISTIAN TYLER

SWAN HUNTER shipyard workers are being given a last chance to build four of the Polish ships despite a "final" decision to place their share of the contract with other U.K. yards.

A mass meeting of shipyard workers has been called for today on the Tyne. National union officials will fly out to address the men.

TV Front coverage criticised by TUC

By Christian Tyler, Labour Editor

THE TUC has protested to the Home Office and the BBC about recent television coverage of the National Front. It has complained in particular about interviews on the "Tonight" programme with Mr. Martin Webster, editor of the National Front publication, "Buildup."

Mr. Len Murray, TUC general secretary, said yesterday that the interviews had contained language which could worry the coloured community.

Halewood talks inconclusive

TALKS BETWEEN senior shop stewards and management at Ford's Halewood plant, where a strike by 1,000 press-shop workers is now in its third week, ended inconclusively yesterday.

Yesterday's meeting, arranged unexpectedly, was the first time in 11 days that the two sides had met to try to resolve the dispute.

APPOINTMENTS

Sir Ralph Bateman to join Furness

Sir Ralph Bateman will join the director and general manager, Board of FURNESS WITBY AND CO. as a non-executive director from February 1. A former president of the Confederation of British Industry, Sir Ralph was chairman of Turner and Newall from 1967 to 1970, and is currently chairman of Stothert and Pitt and a director of Rex Brothers.

Mr. Robert Scott Haddock has joined the Board of the BURMAH OIL COMPANY as deputy president of Amoco Shipping Inc. Mr. Haddock became shipping adviser to the Burma group in 1975. He will retain his existing responsibilities as chairman of the executive of Burma Oil Tankers, and president of Burma Oil Shipping Inc.

Mr. Philip Birch, managing director, has been appointed to the additional post of deputy chairman, WARD WHITE GROUP. Mr. Birch has been managing director of the group since 1968. Mr. Arthur Jolley, who has joined the Board as an additional member, is chief executive of the Safety Products Division, which embraces the G. B. Britton and Protective Footwear Services companies.

Mr. T. S. Brinkmore has been made deputy managing director of CHURCH AND SON from February 1. This will be in addition to Mr. Graybrook's present responsibilities as managing director of Chubb Fire Security.

Mr. Keith Johnson has been appointed as deputy managing director of ROYAL DOULTON SANITARYWARE following the retirement of Mr. Fred Roach, sales director. Mr. Johnson will be responsible for overall marketing policy and sales programmes both at home and overseas.

Miss Moira Shearer (Mrs. Ludovic Kennedy) has accepted an invitation to join the Board of ROYAL DOULTON SANITARYWARE. Miss Shearer was, until recently, a member of the BBC General Advisory Council.

Mr. N. G. Chaston has resigned from the Board of CROSBY SPRING INTERIORS to look after family affairs and has been succeeded as managing director by Mr. William Warburton. Mr. M. J. Crosby has joined the Board.

Mr. Clive Gibson has joined the Board of the FINANCIAL TIMES and the ECONOMIST.

HALIFAX BUILDING SOCIETY announced that Mr. G. W. Mackworth-Young has been appointed to the London Board of directors. Mr. Mackworth-Young is a deputy chairman and group chief executive of Morgan Grenfell and Co., and a director of the United Discount Company of London and of Willis Faber.

ROYAL INSURANCE has announced the retirement from March 31 of Mr. E. Herbert, a sales manager.

An Invitation to Tea.

And an informative discussion about industrial settlement in West Germany.

We invite you to join us on January 31st and February 1st and 2nd to discuss industrial settlement in West Germany. Join us for tea and an informative discussion that could be important to your business - at the Churchill Hotel, Regent Suite, Portman Square, London, in the afternoon from 3-6 p.m.

If you already have appointments on these days and cannot be with us here in London, we invite you to visit us the next time you are in Germany.

HLT - Hessische Landesentwicklungs- und Transportgesellschaft mbH, Abraham-Lincoln-Str. 36-42 D-6000 Wiesbaden, Tel. 0621/77 42 00

In London please contact: Mr. John, Telephone: 235 0691 German Chamber of Industry and Commerce

K/S FEARNLEY OFFSHORE A/S Oslo

Term financing for the Aker H-3 Drilling Rig "Fennstar", built by Rauma Repola Oy, Finland

Den norske Creditbank Manufacturers Hanover Trust Company

US \$ 10,000,000

Loan facility secured by first mortgage in "Fennstar"

Provided by

Manufacturers Hanover Trust Company

Ship Mortgage International Bank N.V.

Den norske Creditbank (Luxembourg) S.A.

Nordfinanz-Bank Zurich (Overseas) Ltd.

Nordic Bank Limited

US \$ 21,000,000

Loan facility guaranteed by Norsk garantistiftelse for skip og borefartøyer A/S

Provided by

Manufacturers Hanover Trust Company

Midland Bank Limited

Den norske Creditbank (Luxembourg) S.A.

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Ship Mortgage International Bank N.V.

Nordic Bank Limited

Agent Den norske Creditbank

November 1977

Jobless aid 'will be needed in 1980s'

By Our Labour Correspondent

THE NEED for programmes to help the unemployed will continue into the 1980s, Mr. John Cresswell, director of the Manpower Services Commission, said yesterday.

"I wish I could say that I think that these programmes will not be needed in the 1980s. It is more likely, I fear, that in the first half of the 1980s at any rate we shall have to improve and refine their impact so that we give help to all of those who are hardest hit," he said in London.

The new youth opportunities programme was being developed in the knowledge that the labour market was not quickly going to become easier for young people. "By and large they have to compete with adults for jobs and often they do so on unequal terms until they have some practical experience and, whenever possible, some training behind them."

Opportunities should be available to all who needed them but no individual opportunity should go on indefinitely. "Work experience is not a way of life - it is a ladder in the world of work and we want all who need it to be able to climb it."

Britain's record in helping young people to make the leap from education to work had not been particularly good and it was urgently necessary to change this. Planned work experience and vocational preparation should cease to be exceptional and become a normal part of a young person's development.

Strike-hit terminal shut

THE CLYDE Port Authority yesterday closed the strike-hit Greenock container terminal for three weeks and ordered a complete renegotiation of all working conditions agreements with the dockers.

The authority said the latest dispute had forced them to recognise that the terminal could not operate in the present climate of disruption.

MANUFACTURERS HANOVER CORPORATION & Subsidiaries

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President and Chief Executive Officer
Allied Stores Corporation

JOHN F. MCGILLICUDDY
President
Dana Corporation

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Chairman of the Board and Chief Executive Officer
Dana Corporation

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Avon Products, Inc.

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Vice Chairman of the Board

MARINA V. N. WHITMAN
Chairman of the Board
H. J. Hingburgh Public Service Corporation of Pittsburgh

GEORGE G. ZIFF
Chairman, President and Chief Executive Officer, The Babcock & Wilcox Company

Consolidated Statement of Condition, December 31, 1977

ASSETS	
Cash and Due from Banks	\$ 8,499,071,000
Interest Bearing Deposits with Banks	3,490,911,000
U. S. Government and Federal Agency Obligations	757,738,000
Obligations of States and Political Subdivisions	1,039,235,000
Other Securities	221,483,000
Trading Account Securities	157,436,000
Total Securities	2,175,886,000
Loans	12,043,248,000
Federal Funds Sold and Securities Purchased under Agreements to Resell	129,900,000
Total Loans	19,173,148,000
Less: Reserve For Possible Loan Losses	(161,947,000)
Unearned Discount	(88,641,000)
Net Loans	18,922,560,000
Lease Financing Receivables	960,746,000
Premises and Equipment	181,951,000
Customers' Liability on Acceptances	901,060,000
Accrued Interest Receivable	302,919,000
Other Real Estate	118,997,000
Other Assets	233,465,000
Total	\$35,787,568,000
LIABILITIES	
Demand Deposits	\$12,657,149,000
Savings Deposits	1,461,475,000
Other Time Deposits	5,441,920,000
Deposits in Overseas Offices	10,232,147,000
Total Deposits	29,792,691,000
Federal Funds Purchased and Securities Sold under Agreements to Repurchase	1,255,339,000
Short-Term Notes Payable	800,212,000
Other Borrowed Funds	392,977,000
Acceptances	922,831,000
Accrued Taxes and Other Expenses	559,734,000
Dividend Payable	16,877,000
Other Liabilities	189,364,000
Long-Term Debt	666,016,000
SHAREHOLDERS' EQUITY	
Preferred Stock (without par value)	
Authorized—10,000,000 shares	
Outstanding—15,560 shares	778,000
Common Stock (par value \$7.50)	
Authorized—40,000,000 shares	
Outstanding—32,456,665 shares	243,425,000
Surplus	419,611,000
Undivided Profits	618,603,000
Total Shareholders' Equity	1,282,417,000
Total	\$35,787,568,000

Headquarters: 350 Park Avenue, New York, N.Y.

London Branches:

City Office: 7 Princes St., EC2P 2LR

Grosvenor Square, P.O. Box 4NF, 88 Brook St., W1A 4NF

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REPRESENTATIVE OFFICES: Bangkok, Beirut, Bogota, Buenos Aires, Cairo, Caracas, Dusseldorf, Edinburgh, Frankfurt, Jakarta, Kuala Lumpur, Lima, Madrid, Mexico City, Munich, Nairobi, Oslo, Paris, Rio de Janeiro, Rome, San Salvador, Sao Paulo, Santiago, Tehran, International Corporate Offices: Chicago, Los Angeles

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A top appointment in the Far East at
circa £30,000 p.a.

Chief Executive New Reinsurance Company

We are acting on behalf of two prominent business houses, both of the highest repute and both involved in Lloyd's Broking and Underwriting.

Our clients are proposing to launch a new Reinsurance Company in the Far East, with a capital structure that will make it of major significance.

To take charge of the new operation a Chief Executive is now looked for. He must be recognised in the London Market as an influential Marine or Non-Marine Underwriter and should have experience of international business, particularly North American. He must also possess well-developed ideas on the overall strategy a new Reinsurance Company should adopt.

A salary and profit commission which could total at least £30,000 is envisaged and, because subsidised housing and a range of other benefits, including generous home leave, will be provided, individuals will be able to accumulate capital. The rate of local taxation is very low.

Any senior Underwriter who would like more information about the appointment is asked to contact Mr. D. R. Whately, whose private telephone number is 01-623 9227. It is fully understood that initial discussions will be largely exploratory. They will also be wholly confidential. Ref. 417.

WHATELY PETRE LIMITED, Executive Selection,
6 Martin Lane, London EC4R 0DL. Tel. 01-623 8430



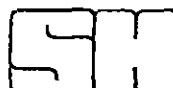
Managing Consultant - Iran c.£17,500 + Accommodation & Benefits

Our associate firm in Iran, a member of Horwath and Horwath International, is seeking an experienced management consultant to establish and develop the Management Advisory Services division of its practice. In the first instance the division will service the existing audit clients of the firm and experience of costing systems in plastics, textiles, and food processing industries is relevant. The consultant will be expected to direct and supervise all stages of consultancy assignments.

This is an opportunity for a consultant with a professional accountancy qualification to assume a highly responsible and challenging position in a dynamic environment. The successful candidate must possess initiative, authority, and above all the ability to communicate at all levels. It is unlikely that candidates under the age of 30 will possess the degree of maturity required for the position.

In addition to salary, there are other benefits that make this a rewarding position. The initial contract period is two years for expatriates. The position may also be attractive to Iranian nationals with the relevant qualifications wishing to return to Iran.

Written applications giving details of career history and education, which will be treated in the strictest confidence, should be sent quoting reference D386 to Dr. Geoffrey M. Seeff.



Stoy Hayward Ltd.
Management Consultants
54 Baker St., London W1M 1DJ

Financial Director LLOYD'S INSURANCE BROKERS c.£10,000

A fast growing Lloyd's Marine Broking Company wishes to appoint a Director to take full responsibility for all Financial, Administrative and Personnel aspects of the Company's future development.

The successful candidate will have a sound accountancy qualification, backed by substantial experience in a highly competitive commercial environment.

Essential requirements are an up to date appreciation of management accounting techniques, the ability to develop computer systems, experience in all aspects of Staff management and familiarity with corporate and personal taxation problems.

In this important phase in the Company's expansion, it is vital that the person appointed should demonstrate sound commercial acumen and the flexibility and adaptability to guide the Board financially in constantly changing circumstances.

The salary for this appointment is negotiable around £10,000 per annum and other benefits include private health insurance and a contributory pension scheme.

Applications should be made in the first instance to R. W. Murphy, Hughes Owens & Hewitt Ltd., 6-8 Old Bond Street, London, W.1., (quoting Ref. No. AM62), who have been retained to advise on this appointment. No information will be passed to our client without the applicant's prior permission.

HOH
HUGHES OWENS & HEWITT

AUDIT SUPERVISORS

Expanding firm of chartered accountants needs ambitious Seniors with some post-qualification experience. Must be self-starters, willing to take responsibility and able to help in the development of the firm's technical standards and quality control.

SALARY: £6,500 P.A.

or more for an exceptional candidate.

Write in confidence to:

Chris Rengert.
SLATER, CHAPMAN & COOKE,
16A St. James's Street, London SW1A 1ER.

RESEARCH/INSTITUTIONAL SALES BIRMINGHAM

Well established Birmingham stockbrokers wish to recruit a Research Analyst/Institutional Sales Executive aged 25/35.

The successful applicant should have an ability to communicate, visit companies and write reports. Previous experience desirable. Please write giving details of your career to date, which will be treated in confidence, to:-

Box No. FT510, c/o Hanway House, Clark's Place,
London EC2N 4BJ.

chequepoint

OPERATIONS MANAGER
£10,000 + Benefits

Our current and proposed expansion programme requires an Operations Manager to direct current financial and branch business and to expand services in line with the additional business that is now being developed. Age to 45. Terms by agreement. Please write with full particulars to D. Stoddart, F.I.B., Chequepoint Services, 47 Old Brompton Road, London, S.W.7.

Taxation Accountant

London From £6,500pa. + car

Our client, a major international engineering group, wishes to recruit a young commercially experienced Taxation Accountant to work at their London based headquarters.

Functioning within an established Taxation Department, the appointee will be primarily responsible for the preparation of the annual taxation provisions of a number of UK subsidiary companies and the submission and agreement of computations with the Inland Revenue. Additionally he or she will assist senior personnel with company wide taxation planning exercises.

For this senior appointment, candidates must be qualified Accountants (ACCA/ACA) with a minimum of 2 years post qualification experience and a proven background in taxation.

In addition to an attractive commencing salary, the successful candidate will participate in a generous employee benefits package, including a car and assistance with relocation, where appropriate.

Please write, in complete confidence, with details of career and salary progression to date, advising any companies to which your application should not be referred.

G. M. Bradshaw,
Lockyer, Bradshaw & Wilson Ltd.,
North West House, 119/127 Marylebone Road, London NW1 5PL

LBW

LOCKYER, BRADSHAW & WILSON
LIMITED

Managing Director

Specialist Converters up to £12,000

This vacancy is caused by the promotion of the present incumbent within the parent group. The company converts synthetic materials into a range of products for a variety of specialist outlets including automotive, filtration, fire retarding, insulation, etc. With around 150 employees and a turnover in excess of £2m it is making healthy profits and there is a lot of growth still to come. Candidates, aged 35 to 45, must have successful career records in a technically based manufacturing industry, preferably plastics, with a broad experience in production management. They must also have been involved with the marketing and development of new products and latterly have undertaken general management responsibilities. Good team leading is an

essential. It is likely that the man or woman to be appointed will be used to the smaller company environment. The post is based in the South East away from London and full help will be given on removal expenses. A suitable car is provided and salary is likely to be between £11,000 and £12,000.

Please Reply to Personnel Services

Ref: GM27/8276/FT

Initial interviews are conducted by PA Consultants. No details are divulged to clients without prior permission. Please send brief career details or write for an application form, quoting the reference number on both your letter and envelope, and advise us if you have recently made any other applications to PA Personnel Services.

PA Personnel Services

Hyde Park House, Knightsbridge, London SW1X 7LE Tel: 01-235 6060 Telex: 27874



A member of PA International

Corporate Lawyer - London (Bilingual English - Italian or French) c. £15,000

A major European Group is currently establishing an international management headquarters in London overseeing a network of companies ranging throughout Europe to the Middle East. Operations comprise a modern fleet of container ships together with extensive overland freight forwarding and handling facilities. The fundamental requirements of this appointment call for a talented, qualified lawyer, preferably

aged under 40, with commercial flair and the capacity to conduct business negotiations with equal facility in English and Italian or French. We must stress that linguistic proficiency is absolutely essential. Reporting to the General Manager, the role will be international in outlook and responsibilities will touch on all aspects of commercial and company law including joint venture agreements and taxation.

Applications in confidence quoting reference: 6189 to Eric Smith, Mervyn Hughes Group, 2-3 Cursitor Street, London EC4A 1NE. Tel: 01-404 5801 (24 hours).

Mervyn Hughes Group

Management Recruitment Consultants

DIRECTOR - CHEMICALS DIVISION

This group of companies is currently seeking to expand its chemical division trading in fine chemicals and ethical pharmaceuticals. The position entails the reorganisation of marketing to acquire new products, new customers and new ideas. The appointee would suit an individual currently earning £10-15,000 with a background in fine chemicals or pharmaceuticals and at least 2 years of innovative marketing experience at director level.

For further information contact:
Iris Newberry on 01-465 8654.
DRAKE PERSONNEL (Consultants),
121, Kingsway, W.C.2

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Exceptional opportunity for young person with enthusiasm and initiative in sales and marketing sphere of investment management. Required initially to back up those directors engaged in the procurement of new business with opportunities for advancement as experience is gained. Must be good correspondent and able to use initiative in dealing with largely overseas clientele. Based South London. Salary £4,000/£5,000 according to qualifications and experience.

Write Box A.6231, Financial Times,
10, Cannon Street, EC4A 3DF

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LOCATED IN PARIS
is looking for

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— Experience in financial analysis and a strong knowledge of Eurocredits are required. Previous work in project finance or ship financing would be a plus.

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Compensation will be negotiable according to experience and qualifications.

Please write with full details to HAVAS CONTACT,
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Applications will be held in strictest confidence.

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Knowledge of stationery would be an advantage

East Anglian works with letterpress and litho processes. Appointment is in the London office and carries opportunity for promotion to main board. Could suit sole proprietor. Terms by arrangement. Apply in writing to: Managing Director, George Berridge & Co. Ltd., 118; Shoreditch High Street, E.1.

Financial Analysts

Energy, Water &
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The World Bank offers challenging opportunities for highly qualified men and women who are interested in international development work and invites applications from Financial Analysts for Energy, Water and Telecommunications Services. Candidates should be able to:

- * review the organization, management, staffing, operating and accounting procedures and financial policies of public utility entities as well as make an analysis of their financial structure and performance;
- * assess the future capacity of entities to finance development projects proposed for Bank Group financing; in this respect, Bank officials in making their recommendations, are required to draw up financial statements covering past, present and future finances of the entities concerned;
- * make sound recommendations on organization, management, financial accounting and control matters; and
- * take part in high level discussions and negotiations on behalf of the Bank with representatives of member Governments and borrowers.

Candidates should have a university degree or equivalent in finance (corporate or public), accounting or business administration, and relevant financial experience of at least 5 years in industry, banks, accounting and consulting firms or public entities. A good knowledge of accounting, finance, management, public utility organization and regulations, and investment criteria is desirable. Age: preferably between 35 and 45 years.

The majority of staff are located at the Bank's headquarters in Washington, D.C., but frequent international travel is involved. Thus, in addition to a good command of written and spoken English, a good knowledge of either French or Spanish is desirable.

Salaries are determined on the basis of qualifications and experience and are net of income tax. In addition, the Bank offers benefits such as pension plan, group life and medical insurance, education benefits and home leave every two years for expatriates.

Please send detailed resume, quoting Ref. 78-4-01203, to:

Recruitment Division,
The World Bank,
1818 H Street, N.W.,
Washington D.C., 20433, U.S.A.

WORLD BANK

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We cater for high ranking executives who are well qualified academically, professionally and/or through sound experience in their particular disciplines, covering a wide cross-section of industry and commerce.

We should like to increase the membership of our carefully compiled top echelon register which is particularly suitable for executives in both public and private companies who are settled in their present posts but would like to be advised of exceptional career opportunities which come to our notice.

Interested executives are invited to write with brief details and in complete confidence to

V K Diver,
Top Echelon Limited,
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Old Bailey,
London EC4M 7HS.
Tel: 01-248 6327



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Currently supported by an able staff of two, the Chief Internal Auditor reports directly to the Financial Controller. The vacancy is created by the promotion of the present incumbent.

We are looking for a qualified accountant with the necessary drive, commonsense and ability to communicate at all levels. If you have these qualities and would enjoy the prospect of being able to make a positive contribution to a dynamic fast expanding business, located in an attractive part of the East Midlands, then please apply for an application form to:-

P.G. Preston, Personnel Manager,
Leicestershire Co-operative Society Ltd.,
4, Union Street, LEICESTER LE1 4HA.

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replacement required Oct./Nov. 1978 for a manager of small banking concern. Applicants should have had experience as manager of a principal bank. Suit Bank Manager retiring soon. Excellent modern offices in Holborn area.

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West End of LONDON £12-14,000 + benefits

REQUIRED: A qualified accountant, man or woman with a strong aptitude in financial control. Preferred age 35-45. Knowledge of international financial transactions an advantage.

PURPOSE: To supervise the financial aspects of the varied interests in the United Kingdom of a prominent Arab investment fund through its U.K. subsidiaries.

SCOPE: Total financial control of a number of U.K. enterprises. Ensuring that first class systems are in use. Monitoring financial planning and progress. Handling, as it were on a group basis, the liquidity situation of these enterprises.

REWARDS: A first class salary and benefits package. Possibilities of extension of the brief to cover overseas interests, and this would entail some overseas and U.K. travel.

REPLIES: Stating age, qualifications and experience, to B. Simmonds, Horwath & Horwath (U.K.) Ltd., Management Consultants, 84 Baker Street, LONDON W1.



Horwath & Horwath (UK) Ltd
Management Consultants

MANAGER MEFCA

Middle East Financial Consulting Associates

MEFCA is jointly owned by a prominent member of the Saudi Royal family and an established New York banking house. The firm, which assists both Middle Eastern and Western clients on project development in the Middle East, is seeking an experienced executive capable of supervising the evaluation of project feasibility studies, the structuring and assembly of project financing, and the monitoring of project development, and of co-ordinating the various elements required for a successful project.

Candidates should have a strong background in finance and several years' association with project development. Experience in the Middle East or with projects in the developing world would be a particular advantage.

The job is located in Munich and involves frequent travel to and within the Middle East. The salary and conditions of employment are attractive.

Please write in strict confidence, with brief personal and career details, to:

John J. McCloy II, General Manager

MEFCA

Ohmstrasse 13, 8000 Munich 40
Federal Republic of Germany

Group Taxation Manager

(£10/12,000+car)

The Borthwick Group is a multi-national food business with an annual turnover of around £500 million. It is principally engaged in the processing, trading and retailing of meat.

As a result of continuing expansion, we require a Group Taxation Manager who will report directly to the Group Financial Controller at the Group's International Headquarters in London. Responsibilities will include:

- * International corporate tax planning.
- * Co-ordination and submission of U.K. tax computations.
- * Tax advice to operating divisions.
- * Close liaison with the Group's international tax advisers.

This is a career appointment with attractive benefits and conditions of service.

Applications are invited from qualified male or female accountants, or others with relevant qualifications and experience. The successful candidate will have at least five years' practical experience of corporate taxation. Preferred age 28-40 years.

Write in confidence, with full career and qualification details to: R.J.W. Milton, Group Personnel Manager, Thomas Borthwick & Sons Ltd., Priory House, St John's Lane, London EC4M 4BX.

Borthwicks

Major European Bank seeks an Area Manager in Nigeria

A major international bank, part of one of the largest European banking groups operating on a worldwide scale, has a rapidly expanding subsidiary in Nigeria. As a result it needs to strengthen its management team by recruiting an Area Manager who will have full responsibility for one of its major branches.

Your task will be to develop business with firms and private clients, to deal with local authorities and to manage a large staff.

The bank is looking for someone not less than 28 years old, with experience in banking as branch or deputy Area Manager. Knowledge of Africa would be an advantage. The bank offers a high salary and other benefits. Their precise level will depend on your experience.

As Area Manager you will have an excellent opportunity of promoting your career within the bank, and also in the group.

Please write in confidence, describing qualifications, personal and career details with current salary to: Ivan Cann Esq., Dept. FT1, Foster Turner & Benson Limited, Chancery House, Chancery Lane, London WC2A 1QU.

List separately any company to whom we should not forward your reply.

Foster Turner & Benson
Recruitment Advertising

INVESTMENT MANAGER

c. £9,000 p.a.

Applicants, preferably qualified accountants, should have stock market investment and general financial experience.

Private family office located in Central London.

Write Box A.6233, Financial Times, 10, Cannon Street, EC4P 4BY.

FINANCIAL ACCOUNTING EXECUTIVE

Aged 40-55 to £7,500
Our client is a prestigious British group (T/O £1,700m.) with extensive overseas interests. It seeks a personable executive (who may have retired early from a similar company) to supervise the budget preparation, advise on accounting policies and set up arrangements for one of its exploration subsidiaries, based in Central London. Candidates should have some relevant financial experience and must be prepared to travel occasionally to Europe, N. East and S. America. Please telephone James Denholm, Management Appointments Ltd. 1 Albemarle St. London W1 01-499 4819

NIGERIANS

Scoa Nigeria Limited is seeking applications from Nigerian executives interested in working in their home country.

It is one of the major public companies operating in Nigeria (turnover over 250 million naira) and has 3,300 employees.

Its main operations are as follows:—

- Distributing and servicing of motor vehicles; Peugeot—Leyland—Suzuki—Mitsubishi.
- Assembly plant—Peugeot and Leyland.
- Fiat—Allis range of earthmoving and agricultural equipment.
- Industrial air-conditioning and refrigeration.

Management positions are available, after a training period for Nigerian executives having degrees and/or experience in the following fields:

- SALES AND MARKETING
- SALES ENGINEERING
- BUSINESS AND ACCOUNTANCY
- PERSONNEL ADMINISTRATION
- TECHNICAL TRAINING MANAGEMENT
- PRODUCTION MANAGEMENT
- MECHANICAL ENGINEERING
- ELECTRICAL ENGINEERING
- FIELD SERVICE ENGINEERING
- SPARE PARTS MANAGEMENT
- CREDIT CONTROL
- INDUSTRIAL ENGINEERING

Information concerning the positions will be communicated upon receipt of handwritten application giving full details of university education and professional experience.

Interviews will be arranged in the coming weeks near your present location.

Write, quoting the name of this newspaper, to:

SCOA NIGERIA LIMITED

P.O. BOX 2083, LAGOS, NIGERIA

Data Processing

MANAGEMENT CONSULTANTS

Many jobs offer the satisfaction and rewards of management consultancy. If you have technical and management experience and ability, this profession provides an exceptional opportunity to help others, and at the same time develops your own strengths and widens your experience.

The analytical, design and project experience which you bring with your business understanding will be developed by working with a world-wide primary professional team on a variety of technical, commercial and strategic problems.

If you wish, you can see the opportunity to add to your normal business, and most employers regard a few years' consultancy as a qualification in itself.

The work is demanding but carries reflect the effort and commitment which is necessary. For overseas assignments, a minimum 12-week duration the rewards are substantial.

The salary range is £28-33.

Our D.P. Consultants are based on our London, Edinburgh, Leeds, Manchester, Birmingham offices.

If you are interested in developing your career through consultancy, please send full details of your education and career, including present remuneration package, to:



E. J. Moore,
Personnel Consultant,
11, Grosvenor Lane,
London EC2A 3JH



Udisco Brokers Limited

LOCAL AUTHORITY
BROKERS

We invite applications from experienced LOCAL AUTHORITY BROKERS to strengthen our established and professional team.

Salary to be negotiated, bonus commensurate with success.

Please apply in confidence to:

The Managing Director, Udisco Brokers Limited,
78-80 Cornhill, London EC3V 3NH

EUROBOND SETTLEMENTS CLERK

required by major U.S. investment banking firm

Candidate should have considerable experience in all aspects of Eurobond settlement, clearance and accounting procedures. The position will offer an attractive salary and good opportunities for increasing responsibility and promotion.

Send résumé to Box A.6233, Financial Times, 10, Cannon Street, EC4P 4BY.

EXECUTIVE TRAINING OFFICER

The Hongkong Bank Group

Hong Kong

c.£12,000 + benefits

Play a key role in the development of the management training function of South East Asia's largest bank. Evolve & Develop new training programmes for tomorrow's Bankers.

Our Client: The Hongkong and Shanghai Banking Corporation, established for over 100 years, has over 400 branches worldwide, with current group assets approaching 15 billion US\$. They operate in dynamic commercial environment which are expected to be the fastest growing economic regions of the world, over the next decade.

The Executive Training Department: has recently been established and is building up a team of ten officers by the end of 1978. Its role is to train younger Bank management in a wide variety of general management disciplines, as well as pure Banking functions. Each officer has high autonomy; planning; developing; co-ordinating and conducting individual courses. Although the department is based in Hong Kong, some travel in Asia will be necessary, to conduct courses for branches in other countries.

Our Ideal Candidate: A well-educated, professional training officer of either sex, with a proven track record in management training, preferably in a financial environment. We seek a candidate of character, formal academic education, a broad-based commercial background, the ability to work harmoniously in a multi-racial environment, and the determination to establish high standards and to work to them.

Remuneration: An attractive contract giving a high basic salary — bonus — free accommodation — 6 weeks paid leave — medical benefits etc.

ACT NOW! To learn more, telephone or write to the Bank's adviser, Richard N. Goode, M.A. (Contact in strictest confidence, on 01-388 2051 or 01-388 2055 (24hr. Ansaphone) quoting ref. 212.



MERTON ASSOCIATES (CONSULTANTS) LIMITED
Merton House, 70 Grafton Way, London W1P 5LN
Executive Search and Management Consultants

General Manager

Engineering

£20,000+

This is an outstanding opportunity to take charge of a large manufacturing and marketing operation with well over 10,000 employees on several sites producing a range of engineered products which are competitive in both U.K. and export markets. The Company is an important part of a major international engineering group which is currently implementing a multi-million pound development programme. A successful record at board level in a large industrial company manufacturing products with a technical or engineering content is mandatory and previous profit

accountability is highly desirable. The ideal candidate will also be a graduate or professionally qualified man or woman with experience in production and marketing and a background in a volume production industry.

REPLIES will be forwarded direct, unopened and in confidence to the client unless addressed to our Security Manager listing companies to which they may not be sent. They should include comprehensive career details, not refer to previous correspondence with PA and quote the reference on the envelope.

PA Advertising

Hyde Park House, 60a Knightsbridge, London SW1X 7LE Tel: 01-235 6060 Telex: 2787-4



A member of PA International

FINANCIAL CONTROLLER

SURREY

Up to £10,000 + car

An expanding public group with a turnover of £20 million in mechanical and civil engineering and with associated companies overseas requires, as a result of promotion, a Financial Controller who will be based at its head office in Surrey.

The successful applicant, who should be a Chartered Accountant aged 28-35, will be responsible for the financial control and administration of the group and its subsidiaries, reporting directly to the Group Managing Director. Opportunity exists for internal promotion to Board level. He/she should have had industrial experience including the control of group accounting, the preparation of management and financial accounts, knowledge of costing systems, company secretarial work and preferably some computer experience.

Ability, initiative and enthusiasm to contribute to the future success of the group are essential.

Please apply in the first instance in writing, giving full details of qualifications and experience, to:

R. G. Linger, Esq.
MESSRS. TANSLEY WITT & CO.
28 Ely Place, London EC1P 1JE

Jonathan Wren · Banking Appointments

The personnel consultancy dealing exclusively with the banking industry

EUROBOND DEALER

A leading investment bank is seeking a young aggressive person with at least three years Eurobond dealing experience. The applicant will also be expected to have experience of the Deutsche-Mark, Guilder and Swiss Franc markets. Fluency in a European language will be an added advantage.

CONTACT: Norm G. Glen (Director)

EUROBOND SETTLEMENTS

A consortium bank wishes to recruit a person with experience in the settlement of Eurobonds, Gilts and Equities. Candidates will ideally be in the age range 25-32, with either Part I A.I.B. or Stock Exchange Exams. The job requires knowledge of the Euroclear system, a good general understanding of investment procedures, and previous experience in a similar job involving some client contact.

CONTACT: Mike Pope

CREDIT LOANS

A respected international bank, with a well-established medium-sized operation in London, has a vacancy for an additional experienced person in its Credit Department. The job combines the functions of Eurocurrency Loan Administration and Credit Analysis; candidates, aged in their mid-to-late twenties, should have several years experience in both of these fields.

CONTACT: Kenneth W. Anderson (Director)

RESEARCH ANALYST

This vacancy is within the Corporate Finance Sector of a major City merchant bank. The bank seeks to recruit a person in his or her mid-twenties with approximately two years experience of company research, probably named in the Research Department of a bank or stockbroker. The emphasis will initially be on company research within the U.K., but there are prospects of greater international involvement. Salary and benefits will be ample to attract the right candidate.

CONTACT: Kenneth W. Anderson (Director)

170 Bishopsgate London EC2M 4LX 01-623 1266/7/8/9

EMA**OPERATIONS ANALYSIS
RECENTLY QUALIFIED ACA****Surrey to £7500 + car**

A key member of a small team, the accountant will travel up to 40% of the time in the UK and overseas working on a variety of projects. These will be analytically biased and will include reviews of systems development, purchasing and production procedures, foreign exchange exposure and management information.

A major international group manufacturing and processing high value commodities, our client is highly profitable. The European headquarters in Surrey controls a turnover of £160 million. Aged 23-26, applicants (male or female) should have qualified within the last two years. Please telephone or write to David Hogg ACA quoting reference 1/1628.

EMA Management Personnel Ltd.
Burne House, 88/89 High Holborn, London, WC1V 6LR
Telephone: 01-242 7773

**UNIVERSITY OF GLASGOW
LECTURESHIP IN ACCOUNTANCY**

Applications are invited for a Lectureship in Accountancy. Placement will be at an appropriate point, according to the experience of the applicant. The salary scale will range up to £6,655 per annum (at present under review). Normal academic requirements will apply.

The Department of Accountancy in the University of Glasgow, one of the strongest in the U.K., provides courses for the specialist degrees of Bachelor of Accountancy (BACC), at honours and at ordinary levels, in degrees in law, in social sciences and in engineering, to a considerable Diploma in Accountancy for graduates in other disciplines and to the Scottish Business School and the Scottish School of Management. Areas of teaching and research include accounting theory, financial accounting, managerial accounting, business law, financial management and audit theory. Persons with higher academic qualifications are particularly invited to apply but opportunities exist for further study and research leading to higher degrees (PhD or MSc) and every encouragement and facility is given to staff to obtain these qualifications. Applications will be considered from candidates with limited experience but a demonstrable interest in teaching and academic work.

Further particulars may be had from the Secretary of the University Court, Uffcross 131, University of Glasgow, Glasgow G12 8QQ, with whom application should be lodged on or before 17th February, 1978.

In reply please quote Ref. No. 3704/GAS.

Construction Industry

A top executive, with broad experience in the industry, is required by a prosperous national building and civil engineering contractor.

Initial earnings will certainly exceed £30,000 and there is no dearth of opportunity.

If you are interested please write briefly, in confidence, to Wallace Macmillan ref. B.31207.

This appointment is open to men and women.

MSL Management Consultants
Management Selection Limited
17 Stratton Street London W1X 6DB

Merchant Bank Accounting

International Involvement**c£6500 + Mortgage Subsidy**

Our client is a member of the Accepting Houses Committee and one of the City's leading international banking groups. They are currently offering opportunities for qualified accountants seeking to develop their careers in the world of finance and commercial banking.

The successful candidates will be involved in reporting and reviewing on the Group's varied activities which include banking, corporate and project finance, investment management, unit trusts, leasing and a sophisticated computer services organisation.

Applications are invited from qualified ACA's in their mid-to-late 20's with experience acquired in one of the leading firms of chartered accountants. A relevant degree and a knowledge of German would be useful.

Conditions of employment are excellent including generous allowances paid whilst on overseas visits, non-contributory pension and mortgage subsidy schemes.

For further details please telephone or write quoting ref FT 186.

Lloyd Chapman Associates
125, New Bond Street, London W1Y 0HR 01-499 7761

Chartered Accountant Switzerland c£15,000+

A leading multinational marketing company with headquarters in Geneva, seeks a chartered accountant.

Reporting to the Controller he or she will initially get to know the company in an internal audit post which is planned to lead to a financial management post. This is a career appointment which has the potential to lead to certain senior positions depending upon performance.

Applicants should be aged over 25 and have qualified with a large or medium sized firm. Those with experience or knowledge of the financial problems of the

heavy engineering industry will have an advantage. A knowledge of French would be helpful.

The initial salary is envisaged as around £15,000 with the appropriate attractive fringe benefits of a leading international company.

The short list interviews are to be held in London in February. Please write in confidence for an application form quoting reference MCS/1986 to Roland Orr, Price Waterhouse Associates, Southwark Towers, 32 London Bridge Street, London SE1 9SY.

Financial Director

BSR Limited, the world's largest manufacturer of record changer mechanisms requires a Financial Director at its Head Office in the West Midlands. The successful applicant will report to the Managing Director and will be expected to play a major role in the management and development of the Group as well as be responsible for the normal accounting and financial functions of this appointment. Applicants should be qualified accountants in their thirties and have a proven record at senior level in industry or commerce. He or she will become a member of a small but active management team, and will have to make occasional short overseas visits each year. A five figure salary will be negotiable and a company car will be provided together with other benefits including assistance with relocation expenses where applicable.

Please write in confidence to:
The Chairman, BSR Limited,
Powke Lane, Cradley Heath,
Warley, West Midlands. B64 5QH.
marked "strictly private and confidential".

APPOINTMENT ADVERTISEMENT
RATE
£14 per single column centimetre

BRISTOL WATERWORKS COMPANY

COMPANY SECRETARY/SOLICITOR

A successor is required to the present Company Secretary who is retiring shortly.

Applicants for the post must be qualified solicitors with several years' experience and ideally should be Chartered Secretaries between the ages of 35 and 50.

The successful applicant will become a member of a corporate management team and the duties will comprise legal, secretarial (including insurance) and administrative matters.

Provision for superannuation is dealt with by the Water Companies' Association Central Pension Fund which is party to the interchange regulations with Local Government Funds and can accept transfer payments.

The starting salary will be negotiable at around £11,500 per annum and a car allowance and resettlement allowance will be payable.

The Company, which was founded in 1846, is responsible for water supply, under arrangement with the Wessex Water Authority, to 970,000 consumers in an area comprising the major part of the County of Avon and parts of Somerset, Gloucestershire and Wiltshire. Annual Revenue last year amounted to £12m.

Applications should be addressed to the General Manager and Secretary, and must be received by 17th February, 1978.

WATERWORKS COMPANY
Bristol Waterworks Company,
25, Broad Street, BRISTOL, B2 1JL.
Tel: 0272 30221 (5 lines).

ASSISTANT VICE-PRESIDENT FOR WEST END BRANCH OF MAJOR INTERNATIONAL BANK

THE JOB: The London, West End, branch of a world-wide banking organisation handles an increasing proportion of the British banking business of its overseas clients and is also attracting a growing corporate, professional and personal connection in its own right. This growth and its continuance creates the vacancy.

THE SUCCESSFUL CANDIDATE, will be aged 33-40, hold the Banking Diploma of the Institute of Bankers, have a record of achievement in this field, and be familiar with the duties of management of a branch bank handling substantial corporate and personal accounts. To have held management responsibility in one of the principal London branches of a clearing bank would be an advantage.

THE REWARDS. The commencing basic salary will be circa £9,000 p.a. and the fringe benefits include profit sharing and non-contributory pension scheme.

APPLICATIONS are invited from professionally qualified male and female bankers who should write immediately with full details of their age, education, experience and current remuneration, and state how they meet the above criteria to Box No. RD-4387 c/o Ertel Recruitment, Pemberton House, East Harding Street, London EC4A 3JD.

All applications will be treated in the strictest confidence but if there are any banks to whom you do not wish your application to be forwarded, these should be printed clearly on the back of the envelope.

SCAN LIMITED

(Stockmarket Computer Answering Network)

has vacancies for a Sales Executive and an Applications Consultant
SALES EXECUTIVE—MANAGER
DESIGNATE to £8,000 plus car
Required: A time sharing sales professional with a proven track record in the computer bureau industry, preferably in the financial field. The applicant will already be a senior sales executive with managerial ability and sufficient drive and determination to continue the rapid growth in this important sector of the company's activities.

For further information please write to or telephone
R. A. EVANS, DIRECTOR, SCAN LIMITED, 25, CLERKENWELL ROAD, LONDON, E.C1. TEL: 0762 874.

APPLICATIONS CONSULTANT—
Salary to £5,500 p.a.
Required: Customer Support Executive with direct experience of investment/stockbroking activities to implement the SCAN system for new clients and to support existing clients. Applicants should have a broad knowledge of Stock Exchange procedures and be able to communicate at Partner level.

Contact: ALAN JEFFREY—01-242 0747.

GILT-EDGED

A well established London firm of Institutional Stockbrokers requires an experienced sales executive dealing in long-dated, gilt-edged securities. The successful candidate will join an expanding department and will receive a competitive salary reflecting the importance of the appointment. There are prospects of an early partnership.

Please write giving personal history to Peat, Marwick, Mitchell & Co., 1, Puddle Dock, London, E.C.4, for the attention of Mr. Peter Knight, with a covering letter listing firms to which you would not wish your reply to be forwarded.

Chief Executive £15,000

A chief executive is required for a leading major dyeing and finishing plant in Yorkshire. Applicants must have specialist knowledge of the trade and a proven track record in this field. Applications in the strictest confidence to Box AA25, Financial Times, 10, Cannon Street, EC4A 4EY.

**HOGG
ROBINSON**

CREDIT INSURANCE BROKER City

The Credit Insurance Association Limited are the leading specialist credit insurance brokers providing to industry widely-based advice on export and home risks. We specialise in very large projects internationally, and we pioneer the development of new covers in the private market.

Due to continued growth of our export business, we are increasing our broking strength and consequently require people of above-average ability who, after a thorough training programme, will be capable of achieving the high standards of negotiation and problem-solving required of our existing team.

Candidates, up to mid-30's, with experience in one of the professions, or with a general business background, preferably in exporting, should combine personal flair and evident intellectual capacity.

Starting salary negotiable; excellent benefits of employment, and there are exceptional career prospects.

Please apply to:-

J. H. Gladwin, Personnel Director,
Hogg Robinson Group Ltd., Lloyds Chambers,
9-13 Crutched Friars, London EC3N 2JS

Chartered Accountant

Home Counties up to £7,500

Our client, one of the leading international firms of Consulting Engineers, requires an ambitious and energetic Chartered Accountant to fill a new post of Deputy Head of the Accounts Department for its head office. The person would be:-

- a qualified accountant—either young and newly qualified or older but still self-motivated.
- reporting to, and be able to stand in for, Head of Department and would therefore be expected to become familiar with all aspects of the accounts work.
- suitable and willing to be sent abroad for visits of 2/3 weeks to set up and/or monitor accounting systems in branch and site offices.

Apply in writing only, giving age and brief details of qualifications and experience to:

A. J. McDonald, Esq., A.C.A.,
Hays Allan,
Southampton House,
317, High Holborn,
London, WC1V 7NL.

HA Hays Allan

DIRECTOR OF MARKETING

The UK Tea Council Ltd.,
(circa £12,000 plus car)

The UK Tea Council is a body formed to promote the consumption of tea in the U.K. and is supported by the tea-producing countries and the tea trade itself. Experience in food or beverages is not essential but the successful candidate will have managed sizeable advertising and PR appropriations, either in product or marketing management, or as an account handler in an advertising agency.

He or she will be responsible, in the first instance, for planning and controlling an extensive three-year advertising and promotional campaign that has been recently initiated. It is not considered that anyone under 30 years of age will have sufficient experience for the position.

Applications, with a detailed curriculum vitae, should be addressed to The Secretary

The Tea Council Ltd.,
Sir John Lyon House (middle block),
5 High Timber Street,
Upper Thames Street, E.C.4

INSTITUTIONAL SALES

Our clients, who are a major firm of stock brokers, wish to appoint two senior institutional sales executives. They will be responsible for marketing high quality specialist research to a wide range of established clients.

The successful candidates are likely to be between 28 and 35, and to have a degree or professional qualification. They should be able to demonstrate their ability to market research based services, particularly to insurance companies and pension funds. Status and reward are likely to be limiting factors and these appointments should provide an excellent opportunity in a profitable and ambitious firm.

Applications will be forwarded direct to our clients. Please indicate in a covering letter any firms to whom you do not wish to apply. Applications, in writing, quoting ref. 904, giving particulars of career to date should be sent to:

W. L. Tait,
Touche Ross and Co.,
Management Consultants,
4, London Wall Buildings,
London, EC2M 6JH.

Accountant Seeking a Challenge

c. £6000

Hertz Europe Limited require a Chartered Accountant to join the Divisional Controller's Department in their European headquarters in West London. This is an ideal opportunity for a recently qualified accountant who wishes to join a small professional team responsible for the effective running of the financial area of a multi-national service company throughout Europe. He or she will gain excellent experience in computer related financial systems - exposure to both European and American accounting principles and a sound appreciation of European Corporate Finance.

The successful applicant must be able to demonstrate within a short period of time management potential as promotion opportunities are excellent.

Please write to: Rita Miles, Personnel Manager,
Hertz Europe Limited, Isleworth House,
Great West Road, Isleworth, Middlesex TW7 5JX.
Telephone: 01-568 4422.

The No. 1 Company



Opportunities in Banking

Due to their rapid expansion, our client, a major Pakistan Bank now has opportunities for Bank Officials in Huddersfield and in other locations throughout England.

Branch Managers

Candidates, aged around 30 and educated to degree standard, must have gained at least five years' banking experience including management responsibility.

Bank Officers

Candidates, aged 20-25 must be educated to degree standard and have gained a breadth of banking experience.

It is essential that applicants are fluent in Urdu and other languages of Pakistan.

All positions offer attractive salaries.

Telephone Brian Trevett
London (01) 235 7030.
Ext. 236.

Applications are welcome from both men and women.

هكذا من الأهل



PA International

Head of Overseas Companies

£11,000 — £13,000 + car

A large British Engineering Group with a number of overseas marketing companies invites applications for a UK based appointment to run the Group's overseas subsidiaries. Reporting to the Managing Director, candidates should be professionally qualified, have had several years' experience in a manufacturing company coupled with export marketing and public centre

responsibility. Some time abroad could be an attraction. Based in London, salary is negotiable in the range £11,000 — £13,000. A car will be provided and other conditions are in keeping with the stature of the Group.

Reply to: PA Advertising Ref: 1/K7890/FT.

International Sales and Marketing

Office copying
Nashua

Nashua Corporation has grown to a position of worldwide significance in the sale of office copiers and supplies. Corporate sales exceed £20m. Nashua International handles all distributor sales in Europe, Africa, Latin America and the Middle East markets; this represents an important area of turnover and profitability — and an exciting and challenging potential. This is a new and senior appointment, based at Bracknell and reporting to the General Manager of Nashua International. The person appointed will be responsible for the development of sales to major accounts — many of which

multinationals — through distributors in this area. The requirement is for an International Marketer — both strategist and tactician — of outstanding achievement. Experience of the marketing of office equipment, particularly in the copying field, preferably including major accounts and the use of distributors will be particularly sought. A highly competitive salary will be negotiated; there is a performance related bonus, and other benefits typical of a major organisation. Reply to: PA Personnel Services Ref: 3M32/6299/FT.

Chief Accountant

Herts.

c. £7500

A rapidly expanding Division of an international group which has an outstanding record of growth and profitability is seeking a Chief Accountant. There are two factories in the Division, each with a Factory Accountant responsible to the Chief Accountant, who in turn will have full financial guidance from the Group Chief Accountant. The person appointed will be a member of the small management team and will assist the General Manager of the Division in assessing the financial

implications of new policies as well as taking responsibility for financial reporting, budgets and secretarial duties relating to the operating companies. Applicants should have a professional accounting qualification, commercial flair and experience in manufacturing industry. Benefits include pension and group life and permanent health insurance schemes; assistance will be given with relocation expenses. Reply to: PA Advertising Ref: 2/H1249/FT.

PA Advertising

Reply Procedure

Unless specifically stated all these appointments are open equally to men and women.

Initial interviews are conducted by telephone unless otherwise stated. Please send comprehensive career details to PA Advertising, quoting the reference number on the envelope. Replies, which should not refer to previous correspondence with PA, will be forwarded direct, unopened and in confidence to the client unless addressed to our Security Manager listing companies to which they may be sent.

Hyde Park House, 10a Knightsbridge, London SW1X 7LE
Tel: 01-235 6060 Telex: 27874

PA Personnel Services

Initial interviews are conducted by PA Consultants. No details are divulged to clients without prior permission. Please send brief career details or write for an application form, quoting the reference number on both your letter and envelope, and advise us if you have recently made any other applications to PA Personnel Services.

International Decision Making

Financial Career Opportunities

c. £7000

This quoted British group with wide UK and overseas interests has achieved conspicuous profit growth both internally and by acquisition. The corporate headquarters, located in the Southern Home Counties, includes a high calibre financial staff intimately involved in the control and creative decision making of the group.

Project Analyst

In the Finance Director's area there is a small team of analysts identifying and appraising business situations, and working on a wide variety of projects. As a result of increasing demand for their services, an additional man or woman is needed.

The duties primarily involve the investigation and evaluation of business opportunities and markets at home and abroad, but in addition there will be involvement in forecasting, fund raising, acquisitions and other financial functions. When decisions have been taken, there may well be occasions for assisting in their implementation, and it is from this that there could be substantial promotional opportunities in either the finance or commercial functions. Preferred age is 25-28 and candidates should have a very good degree, preferably numerate. Intellectual integrity and the ability to formulate, present and sustain an opinion verbally and in writing are essential. Some relevant business experience of economics or finance in a disciplined industrial environment is required. Ref: G138/FT.

Salaries will depend on age and experience, but are likely to fall into the range £6,000 to £7,500. There is a sensible relocation package in addition to normal group benefits for a large company.

Candidates should send a detailed career history to the consultant advising on these positions, quoting the appropriate reference number.

JWT Recruitment Ltd.
40 Berkeley Square, London W1X 6AD.

JWT RECRUITMENT LTD
EXECUTIVE RECRUITMENT & SELECTION 01-235 9446

Financial Accountant

A well-qualified young accountant — ACA or ACCA — is required to join the staff of the Financial Director as Financial Accountant. Structured duties would include consolidations, the interpretation of overseas reports and accounts, budgeting, long-term forecasting, financial

projections, the presentation of information to the Board and a variety of other accounting assignments. In addition, the position will embrace a rigorous controlling function and, in direct contact with the corporate and divisional senior management, also a practical interest in financial planning, appraisal and funding.

The successful candidate, aged 25-28, will have at least 3 years' post-qualifying experience either in a major industrial company or in one of the top professional firms. The ability to prepare and present an analysis clearly and diplomatically to all levels of management is essential, together with good commercial and economic sense. Ref: G14/FT.

Selling to the City

Reuters progressive marketing of advanced computerised news and information services and continuous development of new products has led to rapid expansion both in the UK and abroad. We are urgently looking for executives to ensure our growth.

Ideally applicants should have experience in money or securities market operations, and wish to develop their careers in a related field offering excellent international and management career opportunities. An impressive sales record and a realistic grasp of present and future potential in computer technology related to the financial markets will be desirable attributes.

Annual earnings should be around £10,000 plus car.

Send your curriculum vitae to Brian Haywood, Recruitment Executive or telephone Michael Salamon on 01-300 0400 Ext. 366 for an informal discussion. Applications will be treated in the strictest confidence.

REUTERS,
15, Fleet Street, London EC4A 3DF.
Telephone 01-373 7329.
(This is a 24-hour answering service)

These vacancies are open to male or female applicants.

Potential Entrepreneur

Aged 28-30

Mayfair £8,000 — £10,000 plus car

Our client, a holding company, who has moved from the red into the black, now requires a qualified accountant to monitor the activities of its present and potential subsidiaries. This new position will deal with senior management in the subsidiaries, and involve itself in liaison with banks, the inland revenue, grant-giving

Mrs. Indira Brown, Ref: 10081/FT

Male or female candidates should telephone in confidence for a Personal History Form to: LONDON: 01-734 6852, Sutherland House, 16 Argyll Street, W1E 6EZ.

Hoggett Bowers
Executive Selection Consultants

BIRMINGHAM, GLASGOW, LEEDS, LONDON, MANCHESTER, NEWCASTLE AND SHEFFIELD

Financial Controller

Shipping - City

£8-9000 + Car

Our clients are one of the largest British shipowners operating dry and liquid carriers in association with a world wide group. The company directly controls some 20 ships, sailing under the British Flag, with a net worth of \$80m; turnover is approximately \$50m.

There is now a need for a Financial Controller, reporting to the Financial Director, to take over responsibility for all the financial aspects of control of a diverse range of ships from the City head office.

They are looking for a qualified accountant, probably a young ACCA, to take charge in London, using a sophisticated D.P. system based at an international head office.

The successful candidate will need to display maturity, and have the stature to work with a bright and thrusting management team. He or she will be experienced in cash management, international trade and contracts, and tax matters. Operation of up to date control procedures will be necessary. Knowledge of the shipping industry would be useful but not essential.

A pension scheme and life insurance are in operation and promotion prospects both in the U.K. and internationally are excellent.

Please write in confidence giving concise personal and career details quoting ref. T843/FT to: J. D. Atcherley,

AMS Arthur Young Management Services,
Rolls House,
7 Rolls Buildings, Fetter Lane,
London EC4A 3NL.

MANAGER

South Europe

A leading financial institution in the City specialising in the financing of international trade requires a manager to expand the present portfolio of clients which are situated in Spain and Italy.

The successful candidate will probably be aged between 25 and 35 and have had at least 5 years experience in both the marketing of international trade finance and credit analysis.

Ability to negotiate at high level, a flexible approach and the ability to work without close supervision are paramount requirements.

Fluency in Spanish and Italian is essential, together with sound educational qualifications, preferably up to graduate standard.

The position will be based in London though considerable travel to Southern Europe will be required.

A salary of up to £8,000 p.a. plus considerable benefits will be offered to the right candidate.

Please write in complete confidence giving full career details and present remuneration to:

WALTER JUDD LIMITED (Ref: K910),
(Incorporated Practitioners in Advertising)
7A Bow Lane, London EC4A 9EJ

Financial Controller

Central London

to £9,000

plus car

A U.K. process manufacturing company with a £30m. + turnover seeks a controller for its London head office. This is a total finance role with emphasis on profit improvement, management information and control aspects excluding only tax, treasury and volume accounting. Recognition of personal contribution to profit could include a future senior role in the quoted parent's diversification programme.

Candidates should be qualified accountants (of either sex) aged 25-38, ideally with relevant experience in industry, including sophisticated accounting, control and reporting work. Familiarity with Price Commission procedures is desirable.

For a fuller job description, candidates should write to John Courts & Partners Ltd., Executive Selection Consultants, 78 Wigmore Street, London W1H 8DQ, demonstrating their relevance briefly but explicitly and quoting reference 783/FT.

JC&P



CORPORATE FINANCE

GRESHAM TRUST LIMITED are seeking an executive experienced in all aspects of corporate finance. The successful candidate, aged up to 30, will have had several years' experience in the corporate finance department of a merchant bank or, possibly with appropriate training in a firm of solicitors or accountants.

Applicants should apply, in complete confidence, with full career details to:

L. J. Davies
Gresham Trust Limited
Barrington House, Gresham Street
London, EC2

Financial Management Consultancy

London Based

£9,000—£11,000 +

Over the last four years our growth has been consistently over 20%. Our aim is to become one of the leaders in the market for high quality consultancy and to achieve this we need consultants who can contribute the highest level of technical competence as individuals, and as members of multi-discipline teams.

You will be a qualified accountant whose present executive position was earned by one or more of the following:

- Managing a line department at senior level
- Conducting the financial appraisal of businesses, projects or joint ventures and directing the subsequent investment/divestment
- Managing money for a large group or international company
- Developing corporate plans and designing and implementing the supporting information systems

(In addition there are positions requiring less extensive experience providing candidates have written and spoken fluency in French).

Please write or telephone for an application form quoting reference T844/FT to Paul L. Goodman.



Arthur Young Management Services,
Rolls House, 7 Rolls Buildings, Fetter Lane,
London EC4A 1NL 01-831 7130 Ext. 444.
01-405 1679 (Ansaphone)

Group Business Development Manager

Working at Board level this appointment is concerned with the strategic development of a wide variety of businesses internationally, acquisitions, investment policy decisions and group-wide planning. London-based, it entails considerable travel in the functional control and monitoring of business development activities worldwide.

The company is a British-owned international group with turnover exceeding £250m.

Candidates - numerate graduates in their early thirties - should be line managers with previous business development experience, embracing acquisition analysis, investment appraisal and corporate development in a major international group. The three immediate predecessors in the appointment have all taken up a senior line management position within the group. The person appointed must therefore be able to demonstrate suitability for similar promotion, within three to four years, in the UK or abroad.

Salary negotiable from £12,000; company car, re-location assistance and other appropriate benefits.

Please write - in confidence - with relevant details to P. Saunders ref. B.37362.

This appointment is open to men and women.



Management Selection Limited

17 Stratton Street London W1X 6DB

SENIOR INTERNATIONAL BANKING APPOINTMENT NORTH OF ENGLAND

THE COMPANY is a major international bank.

THE POSITION is newly created and is a senior appointment based in the North West. It is an attractive appointment offering both job satisfaction and opportunities for further advancement.

THE SUCCESSFUL CANDIDATE will probably be aged 35/45, will hold the Diploma of the Institute of Bankers or other appropriate professional qualification, and have had general commercial banking experience at managerial level. Experience of corporate finance in general and medium-term lending in particular would be advantageous.

THE REWARDS will consist of a competitive commencing salary commensurate with the experience of the individual and the responsibilities of the post, and a comprehensive fringe benefit package, which is very generous even by banking industry standards.

APPLICATIONS are invited from qualified male and female Bankers who meet the above criteria and would welcome the challenge of an entirely new appointment in one of the world's largest Banks. Please write now to Box RD.4388 c/o Exel Recruitment, Pemberton House, East Harding Street, London EC4A 3JD, including full details of age, education and experience, and current remuneration. The names of any Banks to whom you would not wish your application to be forwarded should be printed clearly on the back of the envelope.

A Young Professional Foreign Exchange Dealer

As a result of continued growth, one of London's leading Merchant banks is seeking an additional dealer. Candidates, who would probably be in their late twenties, should have a minimum of 4 years experience in Foreign Exchange dealing and a sound knowledge

of Currency Deposit Trading. Salary will be competitive, and is by negotiation. Additional benefits include mortgage subsidy, free BUPA coverage extending to members of immediate family and non-contributory pension.

TO APPLY PLEASE TELEPHONE OR WRITE IN COMPLETE CONFIDENCE TO:
MR. W.C. HARDING, CRIPPS, SEARS & ASSOCIATES (PERSONNEL CONSULTANTS),
BURNES HOUSE, 38/39 HIGH HOLBORN, W.C1. TEL: 01-404 5701

Cripps, Sears



one of the world's leaders in the field of cardiac pacing (pacemakers). Is seeking for its European group of 17 companies an

operational audit manager

(male or female)
BASED IN PARIS

Holding a high position within our organisation, he reports directly to the Director Europe-Afro-Middle East operations.

He will be fully responsible for the development of annual audit coverage plans, in accordance with guidelines provided by the executive committee, and the Corporate Audit Department. The candidate will perform both financial and operational audits and review the internal control systems and procedures. Candidates should have extensive experience in both financial and operational audits in an international environment. Fluency in English is a must. Other European languages an asset. Career opportunities available for a successful candidate. Extensive travel.

Apply with CV, photo and current earnings to:
A.L. Van de Perre - Medtronic European Headquarters
Human Resource Department - 120, av. Charles de Gaulle
92200 NEUILLY-SEINE - FRANCE
Applications will be treated in strictest confidence.

GUERNSEY CHANNEL ISLANDS ADMINISTRATIVE AND FINANCIAL MANAGER

£8,800—£9,800

(HIGHEST PERSONAL TAX RATE 20%)

The states of Guernsey Electricity Board is seeking an Administrative and Financial Manager reporting directly to the Chief Executive of the Board, to be responsible for all financial and management accounting, administrative services and a computer bureau which serves both public and private sectors of the economy. He is also secretary to the board.

This post requires a good generalist with a professional qualification whose basic discipline is accountancy and would probably suit an A.C.C.A. or A.C.M.A. The undertaking is a small to medium stand-alone organisation with a turnover of some £3 million but is interestingly complex as it covers generation and distribution of electricity plus a contracting service and a thriving electrical appliances showroom and of course a computer bureau working to commercial criteria.

Within the policy of the board the postholder is required to make his own decisions and act on his own initiative. He must be a self-starter but must be able to act as a member of a close knit management team.

There is a contributory pension scheme and we would like you to be about 40-47 years old. If you really think you are good enough to do this job and want to work within a low tax, secure but independent community

Why not telephone Mrs. H. Dunn on 04-81 23791.
The closing date for submission of completed application forms is 10th February, 1978.

The Stock Exchange Assistant Treasurer £6,500+

The Finance Department of The Stock Exchange has a vacancy in the City for a young, qualified accountant to assist in the financial management and control of funds. Reporting direct to the Treasurer, he or she will be involved in the preparation of statutory and inflation accounts, cash forecasting, revenue and disbursements control and liaison with the management accounting function.

The successful applicant will preferably have experience in financial administration and basic computerised systems. Application forms and further details are available from Mrs. F. A. Hills, Personnel Service, The Stock Exchange, Old Broad Street, London, E.C.2. Tel: 01-588 2355 ext. 8123.



The Stock Exchange

IRANIAN NATIONALS TAKE YOUR ACCOUNTANCY QUALIFICATIONS BACK TO TEHRAN

Melli Export is a major company based in Tehran and engaged primarily in the production of footwear and leather. Because of continued expansion we can offer excellent career prospects to Iranian nationals with a professional accounting qualification. Experience in the UK subsequent to qualification would be an advantage, particularly in industry or commerce.

Attractive salaries and benefits will be offered, and assistance will be given with relocation costs to Iran.

Please write, giving details of qualifications and experience and quoting Ref. No 128, to:

Mr. A. Cook, Grafton House, PO Box 214, London NW3 7DH.

MANAGING DIRECTOR

required for

FAST EXPANDING INTERNATIONAL ISO CONTAINER LEASING COMPANY

Position is based in East London but will involve foreign travel.

Experience in container leasing and finance desirable but applicants with good all-round management experience with finance background at senior level will be considered.

Remuneration will be commensurate with the demands of this challenging position.

Write Box A.6238, Financial Times,
10, Cannon Street, EC4A 4BY.

Senior Financial Analyst

Multinational Food Operation-Italy

W. R. Grace & Co. Inc., one of the world's leading multinational corporations, have an exceptional career opportunity for a young accountant in one of their subsidiary companies "Barilla S.p.A." based in Parma, Italy. Barilla are Italy's largest manufacturer of pasta and have consistently outsold all other brands on the Italian market for the last 20 years. The Company utilises extremely modern technology in a highly automated, continuous operation and is expanding rapidly through exports and through diversification into non-pasta food products; a programme involving a capital investment of some \$10 million is projected in the coming year. Such investment calls for close attention to financial detail and the Company's management and financial controls are extremely sophisticated, making extensive use of computerised management information techniques, with 50 people employed in EDP alone. We now wish to appoint a Senior Financial Analyst to be responsible for translating financial data generated within the Company into meaningful business reports for submission to the Grace headquarters in New York. This calls for highly developed verbal and written communication skills as the person appointed will be in direct contact with the highest levels of management. The ideal candidate is seen as single, aged between 23 and 26, with a background in accounting, intelligent and aggressive, and who

wishes to make a career within a multinational organisation. However, older, more experienced applicants will be considered, especially those with the ability to step straight into the position. For the younger candidate, full training in the analytical methods used by the Company will be given. Salary for this position and the benefits package will be completely negotiable plus normal Company benefits including transferable EEC pension rights, medical insurance, generous paid holidays, 13th month bonus scheme, plus terminal gratuity of 1 month's salary for every year of service. Parma is an extremely pleasant and cultured city of 180,000 inhabitants at the foot of the Appennine mountains, less than 1 hour's drive from the coast and 20 minutes from the nearest ski resorts. Although the Company language is English, applicants should either already speak Italian, or be willing to learn if the full benefits of this opportunity are to be realised. Once established, there will be excellent career opportunities. If you wish to take advantage of this outstanding opportunity please send full career and personal details to the address below. Short-listed candidates will be interviewed in London. D. Dewell, Group Personnel Manager, W. R. Grace Ltd., Northdale House, North Circular Road, Park Royal, London NW10 7UH.

GRACE

Assistant Legal Adviser

International Commercial Banking-Paris

A major French commercial bank seeks an Assistant to its International Legal Adviser.

This appointment, based at the bank's Paris headquarters, will involve writing international business contracts and taking care of all the legal aspects of the bank's foreign activities.

Applicants, probably aged between 30 and 40, must be professionally qualified with some 5-10 years' legal experience on international financial matters. They should be bilingual in English and French.

The salary offered will be between 100,000 FF and 160,000 FF p.a., depending on experience. Benefits are those normally associated with a major bank.

Please write in confidence with full details to:
Direction des Carrières,
BP 704.08.75361,
Paris, Cedex 08.

Director of Finance & Administration - BRAZIL

This is a new appointment within our associate Brazilian Company: "MILLS ANDAIMES TUBULARES DO BRASIL"

The appointment results from a reassessment of the Company's growth potential and the organisation required to exploit this, especially in the areas of Finance, Administration and Production.

The post is based at Rio de Janeiro and will report to the Managing Director. Applicants should be graduates and preferably hold an MBA or other post graduate business degree. Corporate membership of a professional Accounting Institute is very desirable.

Broad commercial experience should have been gained over a period of 5-7 years. A tour of duty in Brazil or other South American country would be considered an advantage, as would a working knowledge of the Portuguese language.

Essential skills include financial planning and control and administrative ability.

Age range preferred is 35-45.

The salary and other benefits will reflect the high standards set for this job. This aspect together with other appointment details will be discussed at the interview stage.

Applications, giving brief career and educational details to:

T. Pafferman, Director of Personnel & General Administration,

GKN MILLS BUILDING SERVICES LTD

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Applications or enquiries to:-

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Manager, Foreign Exchange & Money
North Carolina National Bank
93 Gresham Street, London EC2V 7LE
Tel: 01-600 0401

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EUROBONDS SETTLEMENTS 2 yrs. exp. in this area needed by leading City investment bankers. Monica Grove Recruitment Consultants, 835 6342.

INTERNATIONAL ISSUES AND FINANCE: SWEDEN

Sparbankernas Bank invites applications from well-qualified individuals for the following positions at the group office in Stockholm.

INTERNATIONAL ISSUES. Duties will include participating in the arrangement of long-term international finance as well as attending to the bank's participation in the primary Eurobond market. The applicant should also be well acquainted with international stock markets in order to be able to advise the bank's institutional clientele.

MEDIUM-TERM FINANCING. Involves the arranging and managing of medium-term loans in international currencies, and handling the bank's participation in similar syndicated loans. The position calls for wide experience, particularly in Eurocurrency credits.

The borrowers in both cases will be mainly among the bank's Swedish clients.

Applicants should, besides being fluent in English, have a thorough knowledge of Swedish, hold a degree in some suitable subject such as Law or Economics, and have had a number of years' experience in one of the above two types of international business.

Sparbankernas Bank is the central institution for its owners, the country's savings banks. Now the fifth largest commercial bank in Sweden, with a group balance-sheet total of 36,000 million kronor, it is undergoing steady and rapid expansion—both as a provider of all regular commercial bank services for the owner savings banks, and on its own account. The clientele is steadily being extended among industrial companies and firms in other kinds of business—with attendant expansion of the bank's foreign operations. Active participation in the rapidly growing Eurobond market has also been accompanied by a great increase in foreign security trading.

On account of special circumstances, applicants are asked in the first place to telephone (reversed charge), if possible before January 31, either to Winston Hökansson (International Issues) or Tomas Hammar (International Financing) in Stockholm at 08 7682 1000, and send written applications later to Sparbankernas Bank, Personalsavdelningen, S-105 34 Stockholm.

SPARBANKERNAS BANK
Mail: S-105 34 Stockholm, Sweden. Telephone: 08-762 10 00.
Telex: 19505 spbank s. Cables: Unionbank.



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R.P. Martin & Co. Limited,
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REQUIRED FOR GROUND FLOOR / FIRST FLOOR OPPORTUNITY

All training given to enable rapid progress
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complete range of financial services to non-
discretionary private clients.

Salary range £6,000-£18,000 calculated on profits
related basis.

Write Box A.6237, Financial Times,
10, Cannon Street, EC4P 4BY.

COMMODITIES APPOINTMENTS

International Recruitment Specialists
for the Commodity Markets



Managing Director Metals

A Trading Company operating in the field of soft commodities
and metals requires a MANAGING DIRECTOR with the
emphasis of background and experience in non-ferrous metals
trading, the L.M.E. and COMEX.

The person appointed will have had management
responsibility for the performance of a trading activity and will
also have had substantial client contact. He/she may have had
experience on the metals desk at a senior level as an Account
Executive in a Commission House, as an Executive with a Ring
Trading or Non-Ring Member of the London Metal Exchange,
or elsewhere in a senior metals trading function.

He/she will be responsible for controlling and motivating
the trading team. The challenge will be to develop fully the
potential of a first class company with world wide producer and
customer connections.

The envisaged age range is 35-45 and the successful
candidate will receive a substantial basic salary negotiable with
experience on the results of the performance of the company. A
car and substantial benefits will be provided.

In the first instance please contact Graham Stewart of
Commodity Appointments Limited who will supply further
relevant information and will arrange interviews in complete
confidence.

Egmont House 116 Shaftesbury Avenue London W1
Tel 01-439 1701

Sr. International Trader

Major U.S. international company seeks person
with extensive trading experience in raw
materials, preferably in coal or petrochemicals.

Position requires heavy European travel and
ability to effectively communicate in English and
French. Ability to communicate in German also
desirable.

Promotion to European Sales Manager opening
within one year available to successful applicant.
Please submit a complete resume with salary
history and requirements to:

Box F 596, Financial Times
10 Cannon Street, EC4P 4BY

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—IRON POWDER, ILMENITE ORE—

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by
QUEBEC IRON AND TITANIUM CORPORATION
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The ideal candidate is 30-40 years old, has a technical background
and experience from international marketing of metallurgical
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and/or French as well as a dynamic marketing approach.

Please respond in confidence to:

the Managing Director
SORELMETAL Beratungsgesellschaft mbH.
Westendstrasse 8
D-6000 Frankfurt/Main 1.
Telephone: 0611 - 72 08 86.



International Recruitment Specialists for the Commodity Markets

SENIOR TRADER—EDIBLE OILS
A Senior Trader with Director potential
and vegetable oil background required to
expand successful Edible Oils Dept. of
long established Merchandise House.
Substantial basic salary and benefits by
negotiation.

01-439 1701

TRAINEE L.M.E. TRADER

required by dealing member. The applicant should ideally be
aged between 17 and 21. Previous market experience is not
required.

Phone R. J. Wyde, HENRY BATH AND SONS LTD.,
29, Market Buildings, Mining Lane,
London E.C.3. Phone 01-626 1981.

COMMODITIES APPOINTMENTS VACANT OR WANTED APPEAR EVERY THURSDAY

For details contact:
STEVE NEVITT
on 01-248 8000 Ext. 591

AIB

Age 25-30? Finished your AIB? Or
never? Always worked in a bank
to far and not really thought anyone
else needed AIBs?

We do! We install computer systems
for International Banks, mainly in
London, but we do have a New York
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We have a current need for two or
three additional people with soundly
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Consultants. We will soon organise
some computer experience for you
and then you can help in talking
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Salaries in our business are very
attractive and you will receive a
substantial increase over your present
salary from the day you join followed
of course, by regular increments. As
well as learning about computers, you
will rapidly enhance your own banking
knowledge as you deal on one project
with an American Bank and on the
next with a specialist Eurocurrency
Bank. Promotion prospects in this
expanding company are excellent.

Why not explore this opportunity by
writing briefly about yourself, in con-
fidence and without obligation, to Mr.
C. Smith, Director, AIB Software
Limited, 35/36, Lincoln's Inn Fields,
London, WC2A 3LJ. (He was in a
Bank for ten years himself).

AND NOT AIB

We have some other specialist needs
and if you happen to be strong on
Eurobond Accounting, or Bills of
Exchange, or Letter of Credit Accounting, we would
like to hear from you, even without
your AIB.

And if you happen to be a computer
programmer or systems analyst inter-
ested enough to read an advertisement
headed AIB then we would like to
hear from you too.

Apply as above.

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Expanding firm working all over
Britain and Continent requires further
consultants with specialist skills,
numerous and practical experience in:

- Warehousing and handling
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transport industry.

It is unlikely that there are less than 30
years old well qualified persons
available for these posts.
A basic knowledge of Italian, French
or German would be a distinct
advantage.

Write in confidence, with details
of previous qualifications, present
salary and age to:
The Managing Director,
M.M. Distribution
Consultants Ltd.
Church View House,
27 High Street,
Glastonbury,
Somerset BA6 8DR.

APPOINTMENTS WANTED

INDEPENDENT FEMALE SEEKS EMPLOYMENT

She is world-travelled, glamorous,
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A medium sized City based firm of stockbrokers
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C. £6,000 P.A.

Insurance Brokers/Loss Adjusters require a versatile person to deal with all
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company.
For a discussion in confidence contact—
Tony Orme or Chris Barnes,
IPS GROUP,
Lloyds Avenue House, 4, Lloyds Avenue, London EC3N 3ES. Tel: 01-588 5792

Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

MATERIALS Tough plastic is easier to mould

PROBABLY THE most important characteristic of the Torlon high temperature resistant engineering plastic, now being launched in Europe by Polypenco, is that it can be handled by manufacturing processes such as extrusion—albeit with care—where comparable materials still need to be handled by much more expensive manufacturing methods in the main.

Torlon, a polyamide-imide made by Amoco, retains its most important engineering characteristics such as tensile strength up to temperatures of 260 deg. C or 500 F, which is double the temperature at which engineering grades of nylon begin to wilt. Compressive strength and impact resistance are exceptional. The material is remarkably tough and has one-third the thermal expansion of nylons and is extremely resistant to chemical attack.

Chemical resistance is offered to most aggressive hydrocarbons and most inorganic salt and acid solutions while electrical performance is high. In the untreated state the material has a low coefficient of friction, typically 0.2 against a widely used carbon steel. But

COMMUNICATIONS Fast access to many telephone lines

THE POST OFFICE has announced the development of a piece of equipment which is aimed at attracting the custom of the jobber and contractor. The "dealer board" provides brokers with push-button access to a large number of phone lines, both private circuits and outside exchange lines.

It is essentially a refinement of the present "key and lamp" system, which was itself developed by the Post Office in the fifties to cater for the specialised needs of the City—though it has since found a wider application. The advantages are that it is semi-electronic, push-button, faster and more reliable, the PO says.

The equipment, which has been on limited offer for some months, has already attracted a number of orders. The Post Office executives believe that it can win a significant place in export markets, especially in the Middle East.

The board will compete, with

equipment marketed by private companies, like Telephone Rentals and Reliance (GEC). Before the jobber was even a dealer used Post Office equipment to interconnect with public exchange lines, and privately rented equipment for private lines. The dealer board obviates the need for the two systems.

A spokesman for Telephone Rentals said that while the PO now had the edge in the market, he expected that both systems would continue to be used.

The manufacture of the boards will be largely done by small electronics companies, assembling the equipment from a kit of components according to Post Office specifications. This represents a break with the established practice of specifying a design, then giving a contract to a large electronics company for the manufacture of the boards.

The Post Office is thought to have switched to this system because of dissatisfaction with delays from its main suppliers. JOHN LLOYD

DATA PROCESSING Supercharged mini

LARGEST mini the Data General 20 and 60 users, are scheduled Corporation has developed to for May.

To cater for such large power in a number of important areas equivalent to IBM's 148, data management facility permits but is aimed primarily at the data which has to be acted on quickly to be moved at rates of 10m characters per second, which is between twice and three times as fast as most current minis.

The machine also has a paging or virtual memory arrangement which has the effect of apparently providing a much larger main memory than is actually installed. This is done by ensuring that only currently needed program "pages" are kept in main memory, the remainder being stored on fast access devices such as fixed hard discs. Languages available include Fortran IV, optimising Fortran 5, extended Basic, PL/I and the company's own system programming language DG/L. Packages are available to allow M/600 to interface with other Data General computers and with IBM compatible systems.

A basic machine would cost just over £100,000 running-up to and working over £1m. for an M/600 with connected to five terminals, minimum facilities.

First deliveries of M/600 on this new venture from systems, which will have between Data General on 01-578 9231.

INSTRUMENTS Quick check on loading

ARGUMENTS about the overloading of big lorries in which wheels precisely over the centre drivers, depot managers, the police, local government officials and others might all be involved at the time of the accident, are settled on the spot with a German-made "portable weighbridge" just introduced into the U.K. by Setpoint.

At a recent demonstration in London, two men arrived at the test location in a two litre estate car with the equipment in the back and installed it on the road surface in about ten minutes. Weighings were then made of heavy goods vehicles to a claimed accuracy of one per cent.

The pair of weighpads are placed so that each wheel of an axle/pair passes over the middle of each pad. Dimensions of each pad are 1,250 by 510 mm (the longer dimension at right angles to the road) and they stand proud of the road surface by a few centimetres. Portable heavy duty ramps are used to bring the wheels gently to this height as the lorries approach. Total vehicle weights of 50 tonnes can be accommodated.

The pad is a high tensile steel plate with grooves cut into its length in which 16 bonded strain gauges are fixed, in an unrevealed configuration. The plate is supported at the ends and at the centre as the wheel passes over. It is not neces-

HANDLING Gives a straight lift

SAID TO be a unique concept in the geometry of front end loaders for attachment to agricultural tractors the Farnvale Hy-Lift allows the attachment end to rise in an almost perpendicular line, similar to a fork lift, rather than describe the usual arc.

This geometry enables the loader to attain a height of 6 metres, while only moving out 1.25 metres in front of the tractor. The loader comprises two arms, main and dipper, and the main moves through only a small arc. A parallel motion link outside the two arms keeps the attachment horizontal.

PROCESSING Coating with glass flakes

ANTI-ABRASION and anti-corrosion coating of hammer-milled glass flakes suspended in polyester resin can be applied to metal with a system developed by Venus Products Inc., in the U.S., and now available in this country.

These flakes are thin particles of glass (nominal thickness 4 microns) produced by hammer-milling glass and passing it through 1/32 or 1/64 inch screen. Mixed with a suitable resin and correctly applied, the flakes form a "fish-scale" barrier coat for the inner surfaces of steel tanks and pipes.

Because the flakes are abrasive and difficult to mix with the resin, special equipment consisting of a high shear mixer, bung-hole mixer, and a saturator spray unit has been developed.

The high shear mixer is necessary for even distribution of flakes through the resin. It is driven by an explosion-proof 2 hp motor, with rpm control from 1,170 to 2,520. The mixer

HAND TOOLS

Whips off old paint

PAINT, rust, scale and other unwanted coatings, even barnacles can be removed from wood, masonry, plastics, or metal, without damaging the surface of the base material, with the aid of a tool called the Roto Stripper developed in the U.S. by the Thompson Tool Co.

It consists of sets of carbon steel wires loosely mounted between two plates on a 1 inch shaft, enabling it to be mounted in any electric or air motor driven hand drill with a 1 inch chuck, and operating speeds between 1600 and 2500 rpm.

The loose mounting of the wires (or fingers) gives a cushioning effect which helps regulate the contact pressure, and allows a surface coating to be

MACHINE TOOLS

Multi-head tube saws

DESIGNED FOR tube mills and high volume users of tubes, such as exhaust pipe, tubular furniture, scaffolding, and camping equipment manufacturers, is a mass production tube saw that in the "2-head" version can cut 18 mm o.d. steel tube at a rate of over 20,000 pieces/hour.

The machine can load and cut two tubes at a time, and is said to be capable of keeping pace with a 120 metre/minute tube mill. A major advantage is the ability to produce different component lengths simultaneously from one stock length of tube.

If two tubes are being cut, the maximum diameter is 80 mm, and on one tube, 90 mm. The

The saw is marketed by the Addison Tool Co., Strawberry Lane, Willenhall, Staffs. (092 61111).

OFFICE EQUIPMENT

S.I. units ruling

AN IMPORTANT modification to an EEC directive on units of measurement has been secured for the business equipment industry by Mr. Richard D. Harrington, director-general of the Business Equipment Trade Association, negotiating with Eurobit, the Association's European federation.

Initially the directive had decreed that symbols for SI force as the directive, thus allowing measurement must be expressed in upper and lower case, the first time that an SI in his representations to the Commission, Richard Harrington

pointed out that certain business equipment could not comply with this directive since the item could print only in upper case, lower case, or both.

After consultation, the committee of Government experts accepted the point and agreed that the International Standard—ISO 2955 of March 1, 1979—should be given the same legal force as the directive, thus allowing alternative methods of expression. This is believed to be the first time that an SI in his representations to the Commission, Richard Harrington

CATERING

Equipment for kitchens

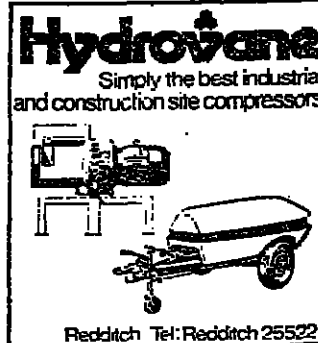
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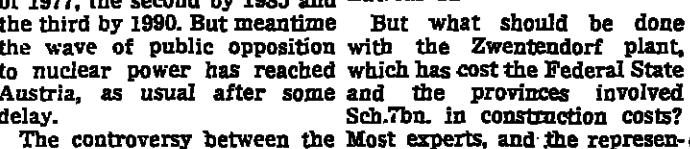
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BY PAUL LENDVAI IN VIENNA

Hydro-power

Original projections of the Institute for Economic Research envisaged that by 1990 hydro plants would be able to cover only half the domestic electric consumption. Meanwhile, however, growth projections have had to be revised downwards. It is now expected that the annual growth rate in energy consumption will not be 7 per



Political fears

Needless to say, the opposition People's Party has already begun to exploit the issue and to embarrass the Government. This is why Dr. Kreisky insists that a full-scale parliamentary debate must precede even pro-

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PARLIAMENT AND POLITICS

Scotland Bill 'skulduggery' denied

Foot yields to protests over timetable change

BY IVOR OWEN, PARLIAMENTARY STAFF

UNDER ATTACK from all sides, Mr. Michael Foot, Leader of the House, was forced to beat a procedural retreat in the Commons last night over the allocation of time for debates on amendments to the Scotland Bill.

A bitter charge of "skulduggery" was levelled at the Government front bench by Mr. George Cunningham (Lab., Islington S. and Finsbury) when he pursued his protest about the effect of an amended timetable proposed by the all-party Business Committee, in charge of the arrangements for applying the guillotine to the Bill.

With support from the Opposition benches and from other Labour backbenchers, he again maintained that the proposed changes would result in MPs being denied an opportunity to vote on an amendment seeking to provide that the Government's devolution plan for Scotland should only become effective if approved by at least 40 per cent. of those entitled to vote in the promised referendum on the issue.

Appearing for a show of defiance by Labour backbenchers, Mr. Cunningham argued that the only way for the House to overcome the "skulduggery" indulged in by Ministers was to reject a motion in the name of Mr. Foot asking for approval for

the proposals made by the Business Committee. Mr. Francis Pym, Conservative devolution spokesman, led the protests from the Opposition benches and these were powerfully supported by Mr. Jo Grimond, the former Liberal leader. "If we conduct our affairs in this way we shall make an absolute farce of democracy," he warned.

An embattled Mr. Foot was subjected to a stream of abusive interruptions from the Tory benches as he again insisted that normal procedures had been followed.

The changes proposed by the Business Committee, he said, had been designed to meet representations made by MPs that original allocation of time had failed to allow adequate debate on a number of important issues. "I repudiate any charge of skulduggery," Mr. Foot declared. Tory MPs continued to press their accusations and were only silenced when the first signs of a Government retreat were observed.

If the House did not want the revised timetable, said Mr. Foot, he would refrain from moving the Government motion so that the original allocation of time would remain unaltered.

Labour backbenchers and the Opposition hailed his retreat as a major victory. In the resumed debate on the Bill, Mr. John Smith, Privy



MR. JOHN SMITH
"Referendum on same basis as Common Market."

Council, Minister of State, confirmed that the devolution referendum in Scotland would be conducted on the same basis as that used for the Common Market referendum in 1975.

A breakdown of the voting results would be published so that the verdicts reached in the different regions and the island communities like the Orkneys and Shetlands could be identified.

He rejected a suggestion by Mr. Pym that the House of Lords should be given a more positive role under the Bill in promoting Parliament's judgment on the referendum, which he stressed, would be consultative and not mandatory.

The Minister maintained that the verdict reached by the House of Commons on the referendum must prevail. The House of Lords would have an opportunity to consider the outcome of the referendum but, in the event of peers reaching a different conclusion to that of MPs, the

decision of the Commons would be paramount.

Despite a revolt by some Labour backbenchers, the Government succeeded in defeating an attempt to have the referendum conducted on a U.K. basis instead of being confined to Scotland.

The amendment was moved by Mr. William Hamilton (Lab., Central Fife), who stated: "It is my belief that the vast majority of working people in England would be opposed to this legislation. If there were a free vote in this House the vast majority would be against it."

He claimed that there was an overwhelming case for conducting the referendum on a U.K. basis. Endorsing this view, Mr. John Stokes (C. Halesowen and Stourbridge) insisted: "Just to hold a referendum in Scotland alone on this vital new constitutional change would be an outrage and a most dangerous precedent."

Opposing the amendment, Mr. Smith argued that for practical reasons alone there was very little merit in the suggestion that the referendum should be conducted on a U.K. basis.

The amendment was defeated by 184 votes to 122, Government majority 62.

Uganda flights verdict soon

THE FUTURE of air cargo flights between Stansted and Uganda will be decided shortly, Mr. Ted Rowlands, Minister of State, Foreign Office, said in the Commons yesterday.

He told MPs who were protesting about delay in stopping the flights, that there were considerable legal obstacles. Mr. Richard Luce, for the Opposition, said that the flights were sustaining President Amin's "tyrannical" regime. It was time the Government stopped equivocating.

Rhodesia peace bid backed by Tories

Financial Times Reporter

THE GOVERNMENT'S approach to an internal settlement of the Rhodesia issue was endorsed in the Commons yesterday by Conservative MPs led by Mr. John Davies, shadow Foreign Secretary.

Mr. Davies said that "the behaviour of the Government does not do honour to us in relation to the efforts currently being made in Rhodesia itself to find a settlement."

The most important thing was to seek, by every possible means, a peaceful solution in Rhodesia. If there was a real prospect of a settlement at the Salisbury talks, it would be madness, indeed, for any Government to seek to frustrate it.

Dr. Owen replied: "I will certainly not frustrate nor will the Government—a peaceful settlement from whatever source it comes."

"I will seek to set the maximum degree of consensus possible, but not at the risk of deserting from the principles laid down in the Anglo-American initiative."

Mr. Michael Brotherton (C., Louth) wanted to know for how much longer the Foreign Secretary planned to use his "had offices" to prevent an internal settlement being agreed by Dr. Owen preferred the "company of murderers to that of moderates."

Dr. Owen told him: "An internal settlement that excludes one of the leading nationalist groups cannot bring about a ceasefire during an election or give peace or stability to a newly independent Zimbabwe."

"Nor would it eliminate the threat to international peace and security. It would therefore be most unlikely to be recognised by the international community."

Mr. Bruce Grocott (Lab., Lichfield and Tamworth) said the Labour MPs fully supported Dr. Owen in his planned talks with the Patriotic Front.

He said: "It would be quite ludicrous to have any kind of paper settlement that did not involve fully the co-operation of the Patriotic Front whose forces have forced Mr. Smith to the conference table."

Dr. Owen replied: "I believe we must pursue a ceasefire as being the stable way of ensuring an independent Zimbabwe."

Mr. Julian Amery (C., Farnham) pointed out that in the last 24 hours the internal talks had made "dramatic progress." He claimed that if an internal settlement was reached, which included the six principles, "it would be extremely difficult for the British Government not to recognise a Rhodesia Government emerging from such a settlement."

Dr. Owen: "I think we should try to talk about principles. The Government, in this House, may alone confer legal independence upon Rhodesia."

"We would certainly not do so if any settlement did not accord with the basic principles established in the Anglo-U.S. initiative."

Mr. Martin Flannery (Lab., Hillingdon) criticised the "nostalgia of the old imperialists" on the Conservative benches. He warned that no solution could be reached if it did not take into account the aspirations of the Patriotic Front.

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Tories cautious on Benn nuclear power plans

BY JOHN HUNT, PARLIAMENTARY CORRESPONDENT

THE LONG-AWAITED statement by Mr. Anthony Wedgwood Benn, Energy Secretary, on the future of the U.K. nuclear power station programme won cautious acceptance in the Commons yesterday.

But the Conservatives made it clear that they have strong reservations about some aspects of the proposals. Mr. Benn announced that the steam generated heavy water reactor (SGHWR) will not be adopted for the next power station orders and that work on it will be discontinued, although the programme has so far cost £145m.

This led to anxious inquiries from the Conservatives about Winfrith Heath in Dorset, the only SGHWR power station in operation. They were not reassured when Mr. Benn failed to give them any specific indication about its future.

The Energy Secretary also announced that the Government had given the go-ahead for two power stations to be built using the British designed advanced gas cooled reactor (AGCR)—one each by the Central Electricity Generating Board and the South of Scotland Electricity Board.

In addition, the Government endorsed the wish of the electricity supply industry to order a power station based on the U.S. and design of the pressurised water reactor (PWR), even though a start could not be made on the site for a power station until 1982.

It was the PWR proposal—and there was now an ongoing role

for all those who worked there. There was sceptical laughter from the Tories when Mr. Benn said that the section of his statement which concerned the PWR had been worded with great precision and he did not wish to go beyond it.

He said the Government was reflecting the view of the generating Board which said that it wanted a valid option to be available, subject to normal consent procedures. There had to be a design for the PWR station and this would have to be approved by the nuclear inspectors.

There was a genuine desire on the part of the generating Board that this option should be available and the Government endorsed this desire.

On Winfrith, the Energy Secretary declared: "I will provide a fuller answer. It is not right to go into details on Winfrith. Give me a little more time."

Answering questions about the effect of his statement on the possible development of a fast breeder reactor, Mr. Benn agreed that this was the next decision which fell to be made. In general, those who favoured the PWR felt that the fast breeder should come later, while those who backed the AGCR felt it should come sooner.

"That is a decision we will have to consider in the light of the statement we have made to-day," Mr. Benn added.

Walker urges party to strike balance Colquhoun protest by officials

BY PHILIP RAWSTORNE

MR. PETER WALKER, former Tory Industry Secretary, yesterday called on the Conservative Party to make "the middle way" of politics its main objective.

At the next election, the party should strike a balance between policies of efficiency and compassion, he said at a Parliamentary Press Gallery lunch.

Mr. Walker recalled that the Macmillan Government had secured the largest Tory majority in the Commons since the war. "There is a school of thought that says the great Tory post-war success was on the theme of 'set the people free'."

"It is certainly true that both Butler and Macmillan removed many of the unnecessary controls and restrictions that a Socialist economy involves."

"But the Macmillan years were not years of laissez-faire. Public expenditure was not massively reduced; in fact, it was massively increased. They were years of social and educational reform, increased housing and positive economic policies to achieve full employment."

Mr. Martin Flannery (Lab., Hillingdon) criticised the "nostalgia of the old imperialists" on the Conservative benches. He warned that no solution could be reached if it did not take into account the aspirations of the Patriotic Front.

Mr. Davies said that "the behaviour of the Government does not do honour to us in relation to the efforts currently being made in Rhodesia itself to find a settlement."

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Mr. Bruce Grocott (Lab., Lichfield and Tamworth) said the Labour MPs fully supported Dr. Owen in his planned talks with the Patriotic Front.

As the Tory Party now prepared for an election, it should reflect upon the attitude and approach of Macmillan, Mr. Walker suggested.

He feared that the realities of the economic and political scene would not be recognised in the election campaign. Mr. Callaghan was "the Mantovani of the British political scene" depending on his success upon the extravagant use of the fiddle.

There was the fiddle of bogus productivity deals "whereby the miners having dropped their production by 30 per cent. compared with a few years ago are now to be paid 30 per cent. extra for increasing production by 15 per cent."

There was the fiddle of tax reductions before polling day, with immense debt-serving costs after polling day.

There was the fiddle of constantly using words to express hostility to racial discrimination while doing nothing about the mass unemployment of young blacks and the deteriorating housing and social conditions of the coloured population.

Mr. Michael Thomas, chairman of Northampton's Park ward, which originally moved the motion calling for the MP's sacking, said last night: "We do not want Mrs. Colquhoun as our MP."

"We are bitterly disappointed at the national executive's decision and we will start the whole procedure over again in order to have her dismissed."

Mr. Thomas said that Mrs. Colquhoun had said "a lot of outrageous things" about some good party members. "We will not rest until she is sacked."

Dr. Peter Heaney, vice-chairman of the Park ward, has threatened to resign if Mrs. Colquhoun is not sacked. He said last night: "If it becomes obvious Mrs. Colquhoun is to be our candidate at the next General Election, I will resign—as will a number of other local Labour Party members."

"We have shown that the Northampton North constituency does not want her. We should be allowed to select our own MP and we are going to choose a person we want."

Mrs. Colquhoun's majority at the last general election was 1,538.

Owen shares concern over Sharansky

DR. DAVID OWEN, Foreign Secretary, yesterday agreed with the Archbishop of Canterbury, as a token of concern for the fate of Sharansky. "The time has come for very plain speaking on behalf of this House," he declared.

He was joined by Sir David Renton (C., Huntingdonshire) who said that Russia's "inhuman and uncivilised" treatment of this man damaged its reputation.

Dr. Owen said he had made clear to the Soviet authorities on several occasions that "very strong public feeling" in Britain signed by 300 MPs, the Speaker

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Time extended

Mr. Roy Hattersley, Secretary for Prices and Consumer Protection, has extended from February 2 to July 31 the date by which the Monopolies Commission must report on wholesale petrol supplies in the U.K.

Channel guide

The first issue of an all-French publication, *Souffle Britannique*, aimed at helping French visitors to the U.K., is now available free on Townsend Thompson and from Southern Tourist Board Information Offices.

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Assurance on Belize

TERRITORIAL "adjustments" were discussed with Guatemala in talks over the Central American country's claims to Belize. Dr. David Owen, Foreign Secretary, told MPs yesterday.

Reporting to the Commons the two-day talks in London with Mr. George Price, Premier of Belize, Dr. Owen said he had confirmed to him that any settlement must be acceptable to the Government and people of Belize.

"I said that recent British discussions with the Guatemalans had been exploratory. Various proposals, including the possibility of territorial adjustments, had been discussed but no agreements had been made or would be made which were not subject to the approval of the people of Belize," Dr. Owen assured MPs.

The Foreign Secretary said he had agreed to requests from Mr. Price that the issue should be put to the people of Belize, and that the Commonwealth should be associated with the process of consultation.

"Both Governments agreed that their aim was early and secure independence for Belize," he said.

Dr. Owen made it clear that the British Government would continue its search for a negotiated settlement, which had not yet been achieved in discussions with Guatemala and other interested Governments.

It was right, he added, that territorial adjustments should be explored, but these would be put to the Belizean people.

If the people of Belize said they wanted no change, the status quo would continue, with the British defending the people of the Crown colony.

Replying to Mr. John Davies, shadow Foreign Secretary, Dr. Owen agreed that it would be "indefensible" to put any pressure on the Belizean people.

They were consulted about any proposals.

"It would be indefensible to depart from the tradition we have always had that such a decision should be freely made," the Foreign Secretary declared.

APOLLO

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مكتبة الأرحل

BY C. P. SNOW

BY DAVID FISHLOCK

Brian Inglis: from miracles to tea-leaves

It would now be entirely possible for such a man to have his claims considered with the utmost energy and rigour. A number of eminent Americans, of the highest reputation, both for integrity and intellectual achievement, have collectively to examine any part of the paranormal campaigns. The group includes first-class philosophers, astronomers, and other kinds of scientists and professional investigators. When they decide, as they should be, this is too important a matter to leave to people who want to believe. But there they are, the challenge is down. It will be interesting to see how the good and intelligent man picks it up.

Catherine the Great, a portrait by an unknown artist. The Empress is the subject of a new biography reviewed below

BY REX WINSBURY

Where Mr. Cronin scores, and scores well, is in his description of Catherine's early life; up to her seizure of power. Helped by Catherine's own autobiographical

Cronin's clear contention that Catherine was a literate, progressive, inquisitive and humane ruler in the Western European mould trying with success to bring enlightenment and good government to a backward

Mr. Cronin, but shied away), she funk'd the basic issue of Russian society, which thereafter took another 100 years or more to resolve, with terrible consequences.

writings and letters, free of excessive academicism, and with warmth and an eye for descriptive detail. In short, this is a good popular biography, subject to the faults indicated, and if others see Catherine differently—well, what two men ever agreed about a close

BY MARTIN SEYMOUR-SMITH

By far the most interesting aspect of the novel is the character of Edgar Bisset and the nature of the religion he founds. Because it is a faith which admits of no evil, it is inevitably corrupted by Bisset's successors.

186.8	339.1	269.2	185.7	192.5	241.6	221.1
117.9	333.8	271.0	186.5	192.3	236.38	221.1
120.1	330.2	271.8	187.4	192.9	232.24	221.1
	328.9	273.3	188.1	194.8	234.29	221.1

BY WILLIAM WEAVER

murdered to clear the way for Catherine's accession in a cold-blooded coup d'etat—whether any of these would have taken such a generous, not to say

with light-hearted erudition.

to his heroine,

agreed about a classy lady?

Dec.	338.2	271.8
	328.9	273.3
	* Not seasonally adjusted	

187.4	192.9	228.24	235.25
188.1	194.8	234.20	241.25

The Marketing Scene

EDITED BY MICHAEL THOMPSON-NOEL

Universal McCann wins £700,000

GING BY ITS current rate of progress, the McCann-Erickson group can do no wrong. This year, Universal McCann, one of the agencies within the group, added on £700,000 worth of business. Photomarkets, which added £500,000 to the group's total, and the Cologne Perfumery Co., which added £471,111 to the group's total, are the two agencies which have added the most to the group's total.

BRUNNINGS, the agency which in November lost the £200,000 account to Universal McCann, has now lost managing director Neil Kennedy, 31, to land Advertising. Kennedy was in faster, in MEAL terms, than the last 18 months than other agency. In another move, Chris Sharpe, relative director at Masius Williams, is joining The Advertising Business.

ROBINSON'S, brand leader in 1976, grocery retail market, has an average sterling share of 18.1 per cent. last year, is supported by £700,000 of advertising and promotion in 1978.

REBOR SHARPS is putting £100,000 behind its Extra Strong brand on TV in 1978. The agency is SW Partners and the market worth £20m.

NET TV advertising revenue for December totalled £29.04m.

The independents thrive

BY MICHAEL THOMPSON-NOEL

ACCORDING TO the forecasters, the advertising boom of the past 18 months may be losing a little of its intensity. But the slow-down is virtually imperceptible, and nowhere in the advertising business is the joy of a more more attractively contagious than in the 18 independent media buying houses who are continuing to siphon off business from full-service agencies at a respectable rate and whose status today, as one of them describes it, is "manifestly legit".

The independent sector of the advertising business has long played the stage when it felt obliged to spell out its aims and attractions: the billings speak for themselves. On most estimates, the independent media buyers are now handling £50m worth of billings, and they are doing so increasingly at the expense of their full-service rivals.

A survey this week of five of the most prominent media-buying houses produced some interesting figures. The five, who account for a sizeable chunk of the direct-buying business, were Chris Ingram Associates, Media Buying Services, Media Marketing, The Media Business and The Media Department.

What the figures show is that last year, these five alone took £3.84m. worth of business away from the full-service agencies. In addition they attracted a further £3.2m. worth of new accounts that came either from first-time advertisers or from companies that had previously handled their advertising in-house.

The value of the accounts that each of them won last year from full-service rivals was as follows:

CIA, £1.67m; TMB, £1.76m; MBS, £10,000; TMD, £1,095m; and MML, £205,000.

Between them, they won some fairly fancy accounts—the sort of household names that lend credence to the notion that not only are the independents increasingly making themselves felt but that there seems no reason why their current rate of growth should slacken.

Chris Ingram Associates, for example, picked up BMW (£900,000), Gillette's (£400,000) and the Guardian (£150,000) among the 11 accounts it won from full-service agencies. The Media Department took on board £1.25m. worth of IPC Women's Magazine's business, as well as the British Oxygen Company (£300,000). Media Buying Services took six accounts away from full-service agencies, including £700,000-worth of business for Ferrero and the Tourist Board (£110,000).

The Media Department added on Heron Motor Group (£400,000), Peter Robinson (£200,000) and Bang and Olufsen (£110,000), as well as six others, and Media Marketing gained the Optical Information Council (£135,000) and Richardson Merrell's Vick Double Action Lotions.

The amounts that each of them won either from first-time advertisers or from companies that had previously handled their advertising in-house were as follows: MBS, £2.05m. (a sum which included Sun International, £700,000, and two brands, including £300,000, from British American Cosmetics); CIA, £395,000; TMB, £350,000; MML, £164,000; and TMD, £150,000.

Alan Rich, of The Media Business, whose billings, together with those of The Poster Business, total £7.2m., says the healthy trend in the independent sector is now firmly established. "What is happening is that whereas the independents mostly set up in business originally to help full-service agencies with their media buying, they are now finding a growing demand from advertisers who wish to deal directly with them, and this direct business will continue to grow in 1978. The only stumbling block is the attitude of some of the media owners or recognition."

David Reich of The Media Department (£2m.) and Robin Kingston of Media Marketing (£4m.) are appropriately concerned about prospects for the next few years. And Chris Ingram of Chris Ingram Associates observes that the £50m. worth of business handled by the independents is approximately the same as the billings for each of the U.K.'s top two full-service agencies, Williams and Masius Wynne.

But there is still plenty of work to do, says Ingram. "The level of use made of the independent by the big packaged goods companies is still far too low, which is a paradox because it is precisely those companies that have the marketing expertise to understand the scale of economies that the independents offer."

Still, nowhere to £50m. in seven years is not a bad rate of growth. And so will it continue.

No soft soap at Cussons

BY PHILIP KLEINMAN

A MARKETING man knows only wonder, then, that Kevin Price, one of the few who have not been seening his product, come from the name of Imperial Leather toilet soap. After year and a half lead after having lost it. No during which Lever Brothers

Shield brand swept all before it, the latest consumer audit figures show Imperial Leather back in front.

Trade Press advertisements, shortly to be published, picture two identical bars of Imperial Leather, one with the old brand leader, and "The new brand leader." They were actually prepared several weeks ago when Cussons and its ad agency, Allen Brady and Marsh, became convinced that the trend was in their favour.

Figures for the four-week period up to December 10 show Imperial Leather with a 14 per cent. share of the £60m. market, against 11 per cent. for Shield and 7 per cent. each for the runners-up—Lever Brothers Lux, Procter and Gamble's Camay, and Palmolive. Those are shares by volume, but the figures for market value, by retail value, are little different.

To appreciate the drama behind the dry statistics, you have to remember that at one point after its launch in April 1976 Shield grabbed an unprecedented 26 per cent. market share by dint of an equally unprecedented steamroller promotional campaign. In that year, Lever Brothers was reckoned to have spent £3.75m. on the brand, including £1m. of TV advertising and a huge amount of promotional price-cutting.

It could be thought—Lever's competitors think—that the success of Shield was due very much to its positioning as a do-dorant soap with a promise of "day-long extra freshness" and very much to its pricing policy. The toilet soap market is notoriously price-sensitive, and differences of a penny can have important consequences.

How much, if anything, the company had sacrificed to buy Shield's brand leadership is a matter of fascinating conjecture within the industry. Lever Brothers spokesmen say Shield was always profitable. Its enormous turnover compensating for the promotional expenditure.

However that may be, the fact is that last year Shield's price was gradually allowed to rise. In June the average price of a 5 oz. bar was 13p (and in this market, because of the continual price promotions, only average prices are of real importance); by November it was 15p. During the same period Imperial Leather's 4½ oz. bar rose in average price from 13p to 14p and was brought down again, despite increases in the cost of raw materials, to 13p.

Lever now accuses Cussons of buying back its brand leadership, but Cussons naturally prefers to find other reasons for what has happened. Kevin Price emphasises that all the studies have shown that Imperial Leather has maintained its image as a quality, luxury soap, an image backed up by ABM's TV advertising featuring a superb aristocratic family seated in three linked baths. The same studies apparently indicated a deterioration in the image of Shield because of its low price policy. This, one may be more important than what the market has done to Shield's brand. In any case, Shield's success in other brands last year in advertising terms, its £750,000 budget was twice that of Imperial Leather.

Shield has not, however, been advertised since last summer. Lever's promotional effort was switched instead to the autumn re-launch of Lux, itself the one-time brand leader before Imperial Leather passed it in early 1975.

Lever Brothers seems not too unhappy about Shield's progress and hints that it will not be using all its marketing muscle to put it back in the lead. And indeed the company has nothing to be unhappy about. By establishing Shield as a strong brand alongside its other brands—Lux, Lifebuoy and Kerith's Castile—it has expanded its total share of the market to 25 per cent., compared with 19 per cent. two years ago.

That won't wipe the smile off Kevin Price's face, though.

According to the Advertising Association, the total ad spend this year will probably rise by 16-17 per cent. to approximately £1.72bn. HAROLD LIND explains how the AA forecast has been revised in scope

Nought for your discomfort

WE ALL SEEM to have a love-hate relationship to published forecasts—or to be more precise, a love-contempt relationship. On the one hand, we think it highly probable they will turn out to be seriously wrong (a prediction which is often accurate), but on the other, a surprisingly large number of us study them carefully, and on occasion, for want of anything better, even act on them.

The forecast of advertising expenditure which I originally started under the auspices of Young and Rubicam, and which was subsequently taken over by the Advertising Association, is fairly typical in this respect. It has had (and often deserved) its fair share of brickbats, but, as the number of subscriptions to the latest forecast indicates, the advertising industry displays a considerable degree of interest in the forecasting area.

There is only one respect in which this forecast can claim to be exceptional. A sustained attempt has been made to find out what its users want, and to adapt the forecast accordingly, at least as far as the usual data constraints permit. The result of talking to users has been a major revision in the scope and methodology of the newly-published forecast.

There are two obvious changes. It used to appear twice a year, and cover the year ahead. From now on it will appear each quarter, and cover 18 months. These may appear to be changes of detail only, but in practice they demand a markedly different type of forecast from that carried out previously.

The previous forecasts were purely economic—a forbidding word, usually accompanied by even more forbidding mathematics, but one which hides a relatively simple concept. The assumption was that there are relationships between advertising expenditure and various economic magnitudes, such as consumers' expenditure, or the rate of inflation, and that the former results from and follows the latter. If this is so, the easily obtained figures for general economic activity would allow us to estimate the future success of advertising.

Naturally, it was never quite

as simple as that, otherwise the forecasts would have been more accurate than they often turned out to be. Nevertheless, this is a nice clear principle for forecasting, which raises few ambiguities. Unfortunately it has one major drawback. As one looks ahead more than about

three quarters, it no longer becomes possible to ascribe movements in advertising to events which have already happened in the economy.

Increasingly, advertising will be affected by economic movements which have not yet taken place. Thus to extend the forecast to 18 months meant that we had to make judgments as to the future of the economy which in turn required us to take a view of a variety of areas from business psychology to industrial relations, since all of these could make a major impact on economic variables which would in turn affect advertising within the 18-month period we were to cover.

Questions about what will replace the present wages policy (if we have one) or the extent to which the Government will feel impelled to increase its spending in the second half of next year to cut unemployment, could easily be ignored when we were looking even four quarters ahead, but must be guessed at when we are looking at the picture for six quarters. We have dealt with this problem by making the new forecast a hybrid, retaining the economic basis for the first few quarters covered, but then

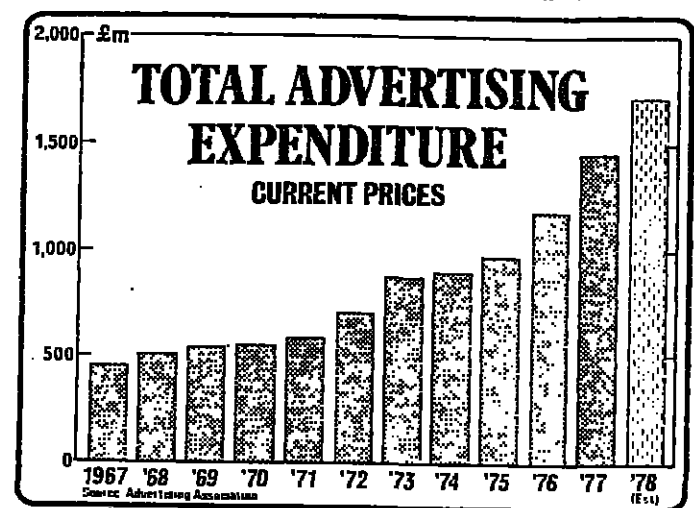
grafting onto it a wider economic forecast which explicitly feeds into a model of the economy various assumptions about the possible policy changes. We were fortunate in that dataStream, which was already doing the basic economic work on which our

security for the forecast. What-ever I may say about the world in the 21st century, it is unlikely that too many people will be around to point to my errors. An 18-month forecast does not provide quite such good security, particularly when it is broken down by quarter. Nevertheless, it permits one to take a rather more synoptic look at the movements within advertising.

In view of the recent period of fast and boom we have seen in the last five years, particularly television advertising, perhaps the most surprising conclusion is that the next 18 months looks like being a period of relatively steady growth. In money terms it is likely that advertising will be up by about 15 per cent. to 18 per cent. in 1978 over 1977, which is somewhat lower than the rate of increase in 1977 (25 per cent.), but quite respectable, and made more so when one remembers that inflation will also be markedly lower this year than last.

These increases will be markedly more than the increase in the national product (probably about 4 per cent. in 1978 over 1977) and should provide a reasonable base for expansion in the advertising business. This is not a particularly spectacular forecast, but advertising, more than most areas, is one where no news is good news.

The quarterly forecast of advertising expenditure published by the Advertising Association costs £5.00 per annum.



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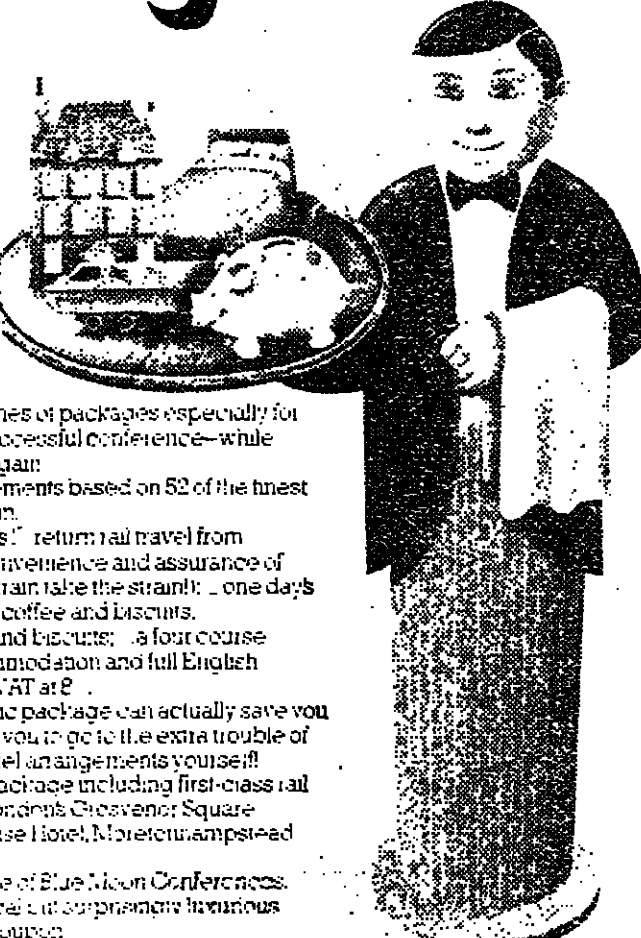
Locations? We can offer arrangements based on 52 of the finest conference and country hotels in Britain.

The basic package also includes: return rail travel from anywhere in Britain and for speed, convenience and assurance of travel there's nothing like letting the train take the strain! One day's use of a conference room, morning coffee and biscuits, table d'hôte lunch, afternoon tea and biscuits, a four-course dinner with coffee, overnight accommodation and full English breakfast, all service charges and VAT at 2.

Now for the economics. That basic package can actually save you up to 50% of what you would pay were you to opt for the extra trouble of organising the identical travel and hotel arrangements yourself!

Two sample prices. The above package including first-class rail and air based on the Europa Hotel in London's Grosvenor Square (room to room £11.24). At the Manor House Hotel, Moreton, Hampshire (£10.10) is just £4.00.

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MARKETING APPOINTMENTS



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Euro-readership

BY MICHAEL RYAN

WHEN A READERSHIP survey has been repeated twice it can reasonably be claimed that persistence has triumphed and the survey has established itself as a planning aid for advertising campaigns. When the second repetition is jointly sponsored by several media owners the claim looks justified.

This is what has happened with the European Businessman Readership Survey. The first one, commissioned by the Financial Times, was published in 1973; the second, also sponsored by the FT on its own, followed two years later.

Yesterday saw the publication of the third EBRs, this time sponsored jointly by six publishing houses who are, in addition to the FT, Handelsblat of Dues-eldorf, two French newspapers, Le Figaro and Les Echos, Berlinische Tidende of Copenhagen and Vision, the European business magazine.

Like the two previous surveys, the 1978 EBRs was carried out by Research Services.

Apart from sponsorship, there are several changes since the 1975 survey. The universe researched is now a wider definition of businessmen numbering approximately 180,000 senior executives in 14 West European countries. This compares with a universe estimate of 70,000 for the same countries in the 1975 survey.

The main reason for the increase in universe size was the decision to include directors in smaller companies, that is to say those employing between 250 and 500.

The sample size has also increased. The postal technique used achieved 5,821 usable replies which represented a response rate of 48 per cent. In the previous survey the sample size was 4,034.

The questionnaires, which were in the language of the respondent—15 separate versions were used—provided readership data on 85 publications, compared with 78 on the previous survey. The readership figures for the top publications are shown in the table:

France's way with State industry

BY DAVID CURRY

EXCEPT for the consistently higher quality of the men they choose to run them, there is nothing to suggest that the attitude of French governments towards the industries they own is any less political than that of their British counterparts. Nor is there anything to prove that nationalised concerns in France are inherently less prone to loss-making than their U.K. equivalents.

Compensation

The idea is that of the formal "contract"—almost a treaty, or in English terms a planning agreement—between state and industry. The essential purpose is to define carefully the line between commercial and political responsibilities, lay down in black and white the state's necessary contribution to the corporate "chequer", and—this is where the treaty element is most present—lay down a specific schedule of financial compensation for obligations imposed on the company for political reasons.

Two of these contracts have been agreed recently with, in the one case, Air France, the most chronically interfered-with of all state industries and, in the other, the coal mining industry, Charbonnages de France. In both cases the objective is to restore the freedom to manage in return for the fulfilment of objectives broadly laid in line with national interests.

For example, over recent years Air France has suffered from three heavy handicaps: it has been refused permission to replace its fleet of ancient Caravelles because there was no French (or partly-French) replacement available; it has been obliged to split operations between the two airports of Roissy and Orly, and it has had to fly the flag in Concorde. All of these caused losses.

The contract just agreed sets a specific price on each handicap, declining as the handicap itself is removed. Thus, the airline will phase out the Caravelles over three years and receive, during that time, Frs.201m. in compensation for their operation. It sets the right to buy its

cherished Boeing 737s only as a temporary replacement: it has promised to be first in line for the new European airliner in the mid-1980s.

A similar scale of compensation is laid down for the division of activity, also reducing as operations are consolidated around Roissy, while the Concorde operation is taken entirely out of the airline's books save for a 30 per cent share of operating losses.

Other parts of the contract deal with fleet procurement, access to capital markets, productivity and growth targets. The state takes over the bulk of non-operating costs and will pay a Frs.14 per kilowatt-hour subsidy—varying in relation to GDP—on output. General financial objectives, capital investment programmes, and the provision for compensation for new burdens are also included in the contract.

Transparency

The system of contracts is not foolproof—a state-owned industry is not a perfectly free bargaining partner. But it offers several advantages. The first is to tackle the central question of setting reasonable commercial criteria for state industry rather than rebarbade and infatuation the traditional political quarrel over ownership. The second is to accept frankly the existence of political considerations and to put a price on consequent national interest activities. By so doing, the management does to some extent, know where it stands. Finally, it introduces a certain transparency into the foggy relationship between government and industry.

The French system is not immediately transferable to the U.K. For one thing French industry is far less subject to union pressure than its British counterpart, for another it is wise not to be too seduced by the myths of the efficiency of French economic planning. But, at least, the idea of government and industry negotiating as sovereign, if not equal powers, has a certain attraction which need not necessarily be limited to the cartesian mind.

The acceptable face of U.S. anti-trust law

PUNITIVE damages against anyone who conspires to rig prices or otherwise restrict competition can now be awarded by U.S. courts to foreign countries. The Supreme Court decided, by a majority judgment of five to three, that "foreign nations" damaged by American companies in violation of anti-trust laws should be entitled to sue for up to triple damages under the Clayton Act. The Act bestows such a right on "persons" suffering that sort of damage and the Supreme Court decided that foreign countries should be considered as "persons" for this purpose. "Deriving foreign nations of the right to sue under U.S. anti-trust laws," the majority decision states, "could encourage and stimulate illegal conspiracies which might result in substantial increases world-wide of prices, thus contributing to U.S. inflation."

The decision concerns the cream of the U.S. pharmaceutical industry: American Cyanamid, Bristol-Myers, Olin, Pfizer, Squibb and Upjohn. They are accused of having agreed to increase the price of tetra-cycline, an antibiotic patented in 1955 and suitable for a wide range of applications, particularly in combating diseases of the respiratory tract. Actions against this alleged conspiracy were brought by the Federal Government, all the U.S. States, individuals and also by nine foreign countries. The Supreme Court judgment was given on an appeal against a decision by the 8th U.S. Circuit Court of Appeals which had ruled that India, Iran, the Philippines and South Vietnam are entitled to bring such actions. Suits filed by Colombia and West Germany are still pending, while Kuwait, South Korea and Spain withdrew from the litigation.

The decision to put foreign countries on an equal footing with U.S. nationals is a more acceptable manifestation of the overseas application of U.S. anti-trust law, which is generally condemned abroad as an undesirable invasion of foreign jurisdiction and was recently rejected by the House of Lords in the RTZ/Westinghouse judgment. The decision of the U.S. Supreme Court puts the state back on the world-wide interdependence of national economies, contradict-

ing, to a certain extent at least, the argument accepted by Lord Wilberforce in his RTZ/Westinghouse speech, that in anti-trust matters public interests of different countries are often opposed to each other. It

BUSINESS AND THE COURTS

By A. H. HERMANN, Legal Correspondent

seems fairly obvious that more will be heard about this in the future.

GERMAN rules of competition were formulated in the post-war period under the direct influence of U.S. anti-trust laws and it is therefore hardly surprising that German anti-trust watch-dogs keep up a steady pressure on the law makers, demanding greater scope for enforcement of competition rules by means of private actions for damages, such as are authorised by the Clayton Act in the U.S. The present German law makes such actions possible only when they protect the individual interests of those who

suffer from infringements of the competition rules. This can occur in all cases of discrimination prohibited by the law, as it is in the nature of such prohibitions that they protect individual interests. Moreover,

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in Berlin to the Supreme Court in Karlsruhe and, sometimes, back again. The Bonn Parliament seems now to be ready to remove this weakness. It is expected that the revision of the Competition Act due this year will enable private actions to be brought in respect of damage suffered after the Cartel Office decision but before such decision is finally confirmed by courts.

BUSINESS AND THE COURTS

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GERMAN rules of competition were formulated in the post-war period under the direct influence of U.S. anti-trust laws and it is therefore hardly surprising that German anti-trust watch-dogs keep up a steady pressure on the law makers, demanding greater scope for enforcement of competition rules by means of private actions for damages, such as are authorised by the Clayton Act in the U.S. The present German law makes such actions possible only when they protect the individual interests of those who

the consumer. The outstanding example of such transformation is the German Act against Unfair Competition which is to undergo revision by the present session of the Bundestag.

The main novelty proposed in the German "green paper" on this subject is an authorisation of private actions by consumers and consumer associations. This would complete the transformation of the Act against Unfair Competition, under which only traders could sue other traders if they are damaged, for example, by a competitor's deceptive advertising. Into the hands of consumers, the act would give them a powerful weapon to combat all the many amendments and court decisions accumulated during 80 years. The revised Act would further accentuate the parallel between competition and consumer-protection legislation: it would give consumers the right to sue for damages against large companies guilty of abuses of market power. In future such practices will be prohibited both under Section 23 of the Competition Act and under Section 1 of the revised Act against Unfair Competition.

Fine jewels at Christie's realise £154,850

CHRISTIE'S sale of fine jewels yesterday totalled £154,850. An antique emerald and diamond parrot motif sold to an anonymous buyer for £14,000 and another private buyer paid £9,500 for an antique diamond open oval link necklace.

Tessiers, the London dealers, paid the same price for an antique diamond necklace composed of 32 graduated collet and circle clusters. Manfred Seymour gave £5,500 for a diamond necklace.

Another Christie's sale, of fine clocks and watches, totalled £181,339. A marquetry long case clock by Gould of London sold to

Red Rum looks overlaid

DONALD McCain, who had respect Red Rum, the 9-1 or 10-1 horse that would be offering a record-breaking fourth National victory for this year's Grand National, was disappointed when the weights came out yesterday.

His remarkable 13-year-old, the three-time winner of 1973, 1974 and 1977 and the runner-up in 1976

RACING

BY DOMINIC WIGAN

and 1978, has been given 11st 13lb—just 1lb less than the Cheltenham Gold Cup second favourite, Fort Devon, who is considered a long way in front of him by the ratings experts of Kilmarnock. Red Rum has been seen to concede weight to recent Cheltenham Gold Cup winners in Royal Frolic (11st 10lb) and Davy Lad (11st 7lb). Although the leading book-makers still have good reason to

to somewhere near his best—should give weight to modest opposition in the St Neots race two hours later.

A third Morley representative, Belling Brook, seems certain to get well in Division II of the Oxford Novices' Hurdle without, perhaps, being quite experienced enough to peg back The Corinthian.

At Taunton, where the second division of the Novices' Hurdle had to be divided, leaving seven races, I hope to see Verdi improve his course record in the opening division of the New Year Novices' Chase.

Turning to today's sport, it will be interesting to see if David Morley's Bury St Edmund's stable can continue its shift towards a revival of fortunes at Huntingdon. Here the Morley contingent includes Helvan and Poor Boy. I hope both will win.

Helvan, among runners for the opener, Division I of the Offord Novices' Hurdle, did well in recent Cheltenham Gold Cup Parsley to three lengths at level weights here seven weeks ago, and now looks set to go one better.

Poor Boy—reported to be back

Blenheim papers for London

THE BLENHEIM archives, which include family and business papers of John Churchill, first Duke of Marlborough, are to be housed in the British Library, at the British Museum.

The collection of 30,000 documents was given to the nation by the Churchill family to pay estate duty.

Lord Donaldson, Arts Minister, announcing the decision yesterday, acknowledged that it thwarted the wishes of the Churchills.

They had expressed a strong wish that the collection should be kept at Churchill College, Cambridge, with other family

papers, but only the British Library had the facilities to look after the archives properly.

Lord Donaldson promised that an immediate and sustained effort would be made by the British Library to ensure access to the collection as soon as possible.

Radio

Indicates programme in black and white.

BBC 1

9.41 a.m. For Schools. Colleges. 2.35 p.m. On The Move. 12.45 News. 1.00 Pebble Mill. 1.45 Rumpin'. 2.00 You and Me. 2.35 For Schools. Colleges. 3.35 For Schools. Colleges. 3.55 For Schools. Colleges. 4.35 For Schools. Colleges. 4.55 For Schools. Colleges. 5.15 For Schools. Colleges. 5.35 For Schools. Colleges. 5.55 For Schools. Colleges. 6.15 For Schools. Colleges. 6.35 For Schools. Colleges. 6.55 For Schools. Colleges. 7.15 For Schools. Colleges. 7.35 For Schools. Colleges. 7.55 For Schools. Colleges. 8.15 For Schools. Colleges. 8.35 For Schools. Colleges. 8.55 For Schools. Colleges. 9.15 For Schools. Colleges. 9.35 For Schools. Colleges. 9.55 For Schools. Colleges. 10.15 For Schools. Colleges. 10.35 For Schools. Colleges. 10.55 For Schools. Colleges. 11.15 For Schools. Colleges. 11.35 For Schools. Colleges. 11.55 For Schools. Colleges. 12.15 For Schools. Colleges. 12.35 For Schools. Colleges. 12.55 For Schools. Colleges. 1.15 For Schools. Colleges. 1.35 For Schools. 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FINANCIAL TIMES

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Thursday January 26 1978

A bedrock tax reform

TAX GRUMBING has for regulations, special provisions many years been one of our for trusts and savings institutions. But a radical analysis of the British tax system, could be scrapped. Some system—which shows, among new provisions—an effective other things, that we have ex-cisions tax to replace capital cellent cause to grumble—has form of charge on emigra-filled with distinction by the tion—would be needed to com-massive report produced to-day still be immeasurably simpler than the one we have now.

Professor James Meade. Its conclusions are at first sight so sweeping that it is hard to remember that the report is the work not only of academics, whose strength is theoretical analysis, but of experienced practical men—accountants, a tax lawyer, and the former Deputy Chairman of the Inland Revenue. The careful proposals for transitional measures, and for reconciliation with foreign tax systems, show that the committee has been as much concerned with practicable proposals as with radical change.

Not so radical

In fact, however, the central proposals are rather less radical in practice than they are in principle: for the analysis of the existing tax system shows that piecemeal reforms and concessions have nudged it almost irretrievably far from the supposed basis of direct taxation—a properly defined measure of income. The Report argues convincingly that the changes needed to convert the present income tax into a pure expenditure tax are considerably less radical than those needed to get back to a proper definition of income—which would have to take some account, among other things, of the erosion of capital values by inflation. Corporate taxation, with 100 per cent relief on expenditure on plant and 90 per cent relief for stock appreciation, is now based on a sum much closer to cash flow than any of the much-debated definitions of profit.

Direct taxes based on expenditure and cash flow would have a consistent and readily understood philosophy, and would automatically fall on taxpayers in a position to pay tax without embarrassment—that is people who spend freely or companies with a healthy cash flow. There could also be a vast administrative simplification. Since the revenue would be concerned more to measure actual expenditure, and would not be concerned with how it was financed, a whole tangle of close company

A strong case

This seems to be a picture of conditions in which enterprise could flourish: but the effect of taxes depends on the rates levied as well as on the structure. The committee's aim has been to produce a structure in which even heavy taxation would be less stifling than it is now, and above all a structure in which different political aims could be achieved by altering rates without introducing disturbing structural changes and anomalies.

The committee makes a strong case for the structure it proposes, even though some of its other proposals—the programme for social security, for example—would inevitably keep the total burden fairly heavy. The report contains one or two silly conclusions—its treatment of social security costs as a "surcharge on earned income," for example—and raises some unanswered questions, as in its call for a radical review of housing finance. But its central insights are invaluable. Future Chancellors will find it much harder to get away with mere meddling with our burdensome and inefficient tax system.

Fewer people employed

THE UNEMPLOYMENT figures are published monthly and promptly, and are therefore much used as an economic indicator. For the past 12 months, however, they have been behaving somewhat oddly. Recorded unemployment, after adjustment for regular seasonal variations, fell moderately in the early months of 1977, rose steeply during the summer, and began to fall again in October—a fall which has continued up to the present month. At the same time, the number of registered but unfilled job vacancies has recently begun to rise again, with a particularly sharp rise between December and January.

Given the very high level of unemployment, which now amounts to 61 per cent of the country's labour force, any fall is to be welcomed. But both the rises and the falls which appear to have taken place in the course of 1977 have to be set against the fact that national output remained pretty much unchanged throughout.

The evidence of recent surveys, moreover, is that the demand for unskilled labour is at best flat and that many employers are in a position to increase output considerably without any expansion of their labour force. One can welcome the improvement yet doubt whether it is more than apparent.

Two series

There are two possible sources of error. One is that the seasonal adjustments applied to the raw figures to bring out the underlying trend have for some reason gone astray. This is not the only statistical series in which the process of seasonal adjustment has recently been more difficult than usual. The other is that the precise effect of the various government schemes for maintaining or creating jobs is not easy to gauge.

David Fishlock, Science Editor, examines some potentially false economies of scale in experimental projects

Pitfalls for the energy planners

BEHIND THE news reported in the Financial Times earlier this month, that the Government is thinking of building a giant windmill in order to try out the technology of aero-generators as a "benign and renewable" source of energy, lies a perplexing problem for Government and its advisers: how much must we spend on demonstrating publicly whether a new energy source will work or not?

A U.S. engineer built a big windmill during the second World War but one of its eight blades fell off a few years later. For the enthusiast all is explained away by a statement such as "the designer had problems getting all the right materials and was forced to cut corners," as one of our readers wrote recently. But the power engineer, well accustomed to the horrendous problems of making his plants perform reliably and efficiently for years at a stretch, knows that such troubles are too often dismissed by enthusiasts as mere "engineering detail."

The Central Electricity Generating Board believes firmly that the British-designed advanced gas-cooled reactor has had a sufficiently chequered career to justify a second choice of nuclear system as an insurance against construction problems, deratings or some other difficulty that might hamper their use of nuclear energy. In order to gain enough experience of the "engineering details" of so complex a system as a reactor, it asked the Government's permission to order one full-scale power station of the reactor of its choice—the pressurised water reactor (PWR). Although the Government yesterday formally accepted the principle of its argument, it still balks at authorising construction of a PWR in practice.

Energy supply is one of a number of technologically-based services on which society has come to place tremendous reliance. As Professor Sir Jean Maddock, president of the British Association, pointed out at Imperial College recently, while a handful of people have chosen to opt out of this society, "the vast majority of people have become completely dependent on the present level of technology and in the main are willing if not eager to have more."

Time was when the power engineers themselves were guilty of excessive optimism in advancing schemes for bigger and better machines. On paper the economies of scale seemed to justify the technological leaps, not just in size, but also in temperatures required in the

laudable quest for greater thermodynamic efficiency. Before one generation of machines had left the factory the engineers were adopting a new generation—bigger, faster and hotter.

Then, about ten years ago, there came the first convincing signs that even if the engineers were not nearing some natural limit, they were certainly pressing ahead a bit too fast. They ran into serious problems in building and commissioning the first 500-megawatt coal- and oil-burning boilers, and the first 500 MW turbo-generator sets. They had serious trouble scaling up the first generation of British nuclear reactors. A recent report from the Central Electricity Generating Board shows that Wyllfa, last and largest of the family of Magnox stations, was not only several years late in completion but performed very badly for three years until the Board undertook a major refit during 1974-76. It cost about £2m, for labour charges and £54m in replacement generation costs.

The advanced gas-cooled reactors (AGRs), the new breed of nuclear reactors, were launched from the basis of a demonstration reactor at

different design, probably even more troublesome to execute. In the case of the steam-generating heavy-water reactor (SGHWR), originally conceived as an insurance against troubles with the gas-cooled line of reactors, the Government ordered a 100 MW demonstration. In 1974, when the Government decided to drop the AGR and adopt the SGHWR, it was argued that a leap to 680 MW was so much more realistic, that no serious troubles need be expected. It was not to be. Designing a 680 MW SGHWR to conform to the latest U.K. engineering philosophy on reactor safety turned out too difficult and expensive to be worth pursuing at this stage of thermal reactor development.

It was the "unanimous advice of all concerned" that work on the SGHWR should be discontinued. Mr. Anthony Wedgwood Benn, Secretary for Energy, told Parliament yesterday.

Even the big turbo-generators needed for nuclear boilers of that size are not yet out of trouble. Last winter the electricity supply industry ran into trouble with cracks in the shafts of the Parsons 660 MW generators, after only about 15,000 hours. This winter it has met a

Biblis A and B, a 1,300-MW pressurised water reactor in West Germany; this is the size of station the CEBG wants to build in England.

board of technology" as a former U.S. energy research chief once called it—is now being urged on the Government as being ripe for demonstration. Often they are being urged as alternatives to nuclear energy by those trying to show that we have no need to build nuclear plants, or who see nuclear projects simply as competitors for their own pet schemes. Usually the schemes propose scale-ups from present experience of an order that makes the leaps of the past look like nervous shufflings.

The fluidised-bed boiler is a case in point. It is being supported as a technology for burning crushed coal—the dirtiest refractory particles, kept in motion by blowing air through the bed. Let us leave aside whether enough coal might be mined to provide all the U.K.'s electricity from fluidised-bed boilers, as well as to feed substitute natural gas plants. Let us concentrate on the state of development of a boiler which

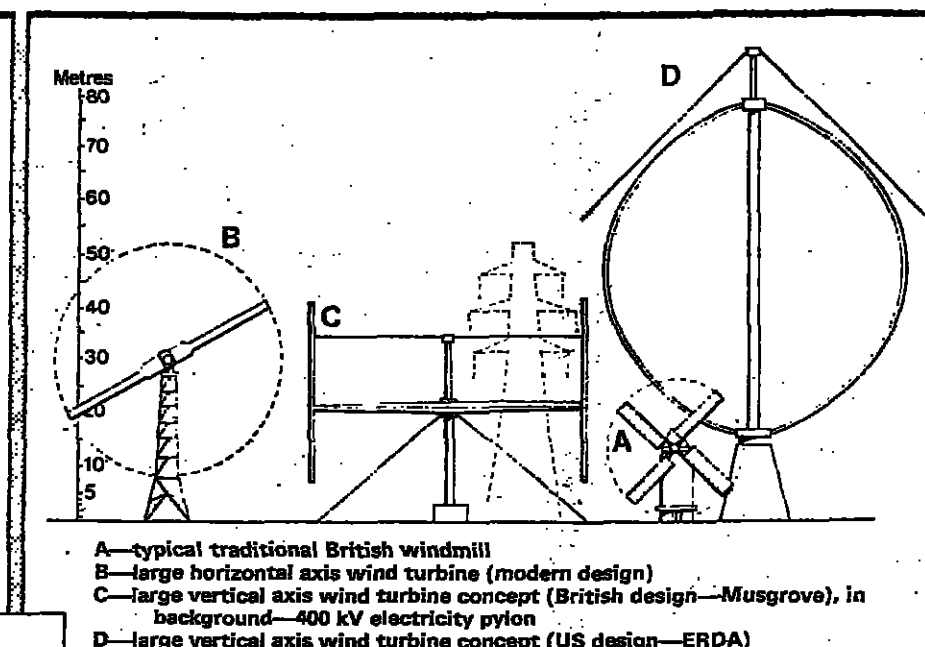
Fluidised-bed boilers and windmills are only two of the many technologies which the Government funds itself under increasing pressure to demonstrate on a large scale. It has no less than four schemes for harnessing waves under development, the most advanced of which has reached the stage of a one-tenth scale model being tested in the comparatively sheltered waters of Loch Ness. Another will shortly be tried out in the Solent. The coal and gas industries have a family of conversion processes which they would like to take to demonstration stage at Government expense.

The Government's mechanism for getting out the technologies is ACORD, the Advisory Committee on Energy Research and Development, under the chairmanship of Sir Hermann Bondi, chief scientist at the Department of Energy. The committee knows well that in most cases a demonstration is going to cost tens of millions of pounds. Inevitably, the advocates of many such schemes are going to be disappointed. For others, however, there may be a consolation prize if ACORD can isolate the critical features or components, and spend money on demonstrating whether they can be made to work successfully. It may even be possible to prove or disprove the claims being made for one of the most ambitious energy projects—a tidal barrage of a leap of this magnitude across the river Severn—by when in the mid-1980s CEBG building and testing major components of the proposed scheme.



Light shading shows sites of highest available wind energy

Source: ENERGY TECHNICAL SUPPORT UNIT

A—typical traditional British windmill
B—large horizontal axis wind turbine concept (modern design)
C—large vertical axis wind turbine concept (British design—Musgrove), in background—400 kV electricity pylon
D—large vertical axis wind turbine concept (US design—ERDA)

Windscale of 33 MW—one 20th the scale of the commercial stations. Serious difficulties were encountered with the design during construction, more troubles occurred while commissioning, and fresh problems during the two years they have been running. Their most ardent supporters agree that the leap from 33 to 680 MW was too big, that the first pair of AGR stations, Hinkley B and Hunterston B, have really been demonstration projects—at around £140m apiece. Unfortunately, the second pair under construction at Hartlepool and Heysham, are of a significantly

similar problem with the 680 MW GEC generators. There must be a lesson in this chapter of accidents for those in Westminster and Whitehall who think that they are better equipped to choose the technology for electricity generation. Paradoxically, they have begun to learn the lesson in the case of the nuclear and still unproven technologies which are closer to the marketplace—wind and the arguments used to avoid actually ordering a demonstration pressurised water reactor.

The idea of building a giant

of 3.4 MW—1,000 times the output of the biggest windmill Britain can boast to-day—can resolve the technical questions. It could well cost several million pounds to construct, probably on a hilltop in Scotland. At best it would demonstrate that the enthusiasts for windpower are not talking nonsense when they talk of revisiting a technology with 4,000 years of history, until coal was discovered. At worst, the giant windmill would simply fall over in the first big gale.

A rich variety of novel energy ideas — a veritable "smorgas-

MEN AND MATTERS

Vospers all at sea

Eyebrows have been raised this week in the usually staid world of naval shipbuilding by boardroom manoeuvres at Vospers Thornycroft.

First came the quietly published news that Sir John Rix, arch opponent of the industry's nationalisation, had decided to quit before reaching his sixtieth birthday to "return to the private sector of industry."

More dramatic was the choice of his successor, Andrew Shaw, at present managing director of the successful engineering operation of Vospers' products division.

Shaw, at 39, is very much the junior member of the Vospers Board, but what is most surprising about his appointment is that his own resignation letter from the company sat on Sir John's desk for several weeks last year.

Shaw apparently felt that his talents were not being given full scope.

He only reversed his decision after considerable pressure from British Shipbuilders, which took over Vospers last July and which didn't want to see one of its brighter young managers opting out of the industry.

Meanwhile at Vospers, Sir John was sparring with Michael Casey, chief executive of British Shipbuilders, over a variety of issues from the best means of selling gunboats to South America to pay policy.

air, whereupon Rix announced that he intended to settle unilaterally, backed up by the argument that the nationalisation Bill had promised autonomy of management for individual companies. When he was told that this was out of the question, he resigned.

Shaw finally emerged as the leading candidate to replace Rix although his nomination was secured only after considerable debate within the board. A boardroom reshuffle could well be on the cards once Shaw takes over the top seat on February 1.

As for Sir John, it's a fair bet that he'll be going back to the private bit of Vospers left behind by nationalisation, which chiefly consists of a naval shipbuilding facility in Singapore. This, if it happens, will set him in competition with Britain's state shipbuilders—a position which should suit his temperament very well indeed.

Real schmaltz

La Place du Theatre, the tiny square in the heart of old Montmartre close to Sacre Coeur, is a must for tourists who like to imagine themselves back in the naughty days of the fin de siècle amid absinthe-drinking poets and artists. It is packed with amateur pavement painters, silhouette artists and trick performers.

The only trouble is that genuine artists have been losing out to confidence trickmen in stocks whose main artistic invention has been to nip down to the nearest department store to stock up with pictures from the bargain basement. They then put them on the easel, pose with a furrowed brow, paintbrush in hand, and wait for the tourist to persuade them to make the heart-wrenching parting with their work of original genius.

Meetings between Admiral Sir Anthony Griffin, British Shipbuilders' chairman, and the Chancellor failed to clear the



"On Government spending only I hope..."

prefect of police, has had enough. He has issued a decree regulating artistic activity at the square. Every artist wanting to work on the square must now get what is, in practice, a police licence valid for a year and he must have no record of fraud. To get this permit he will need to prove that he has a domicile and that his papers are in order. Furthermore, he must have signed on to the social security system and belong to the artists' pension fund while each painter is limited to one easel, one work on the easel, and two pictures drying. Finally, all soliciting is forbidden.

A new pecking order has also been established — licensed artists in the centre of the square, portrait painters and silhouette artists on the fringes. If you happen to like painting by numbers, Paris is no longer for you.

This is the news

Holding the page one slot in the East German Communist newspaper Neues Deutsch-

land for two days in a row may not be everyone's idea of fame. But fame of a kind it is, and Gordon McLennan, secretary-general of our own home-grown Communist Party, has been basking in its limelight over the past few days during his official visit to party comrades in East Germany.

But those attentive readers of Neues Deutschland whose interest extends beyond the sports pages have discerned a certain degree of ideological sniping behind the fulsome words of praise and mutual esteem.

True to the East German party's reputation as being more papist than the Pope, Erich Honecker, the East German head of state, managed to slip in a quick plug for "proletarian internationalism" while toasting his guest at the official reception.

That of course is the phrase meaning the right of Warsaw Pact troops to intervene in a brotherly fashion, and as such is strongly disapproved of by Euro-communists who tend to wince when the words are heard.

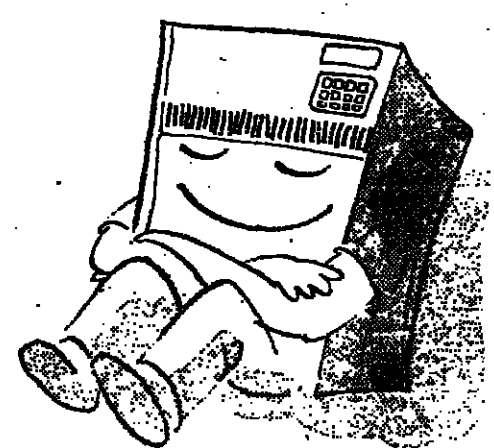
Having had the party's generally Euro-communist line approved at the recent party congress, McLennan for his part emphasised the "sovereignty and independence" of each fraternal party, and even slipped in the naughty phrase "as Comrade Honecker emphasised," Honecker was, apparently, not amused.

Eating your cake

This column's award for trying goes to the company which, having carefully steered its self-financing productivity deal through the Department of Employment, then put the cost of the deal into its application to the Price Commission for higher prices.

Observer

Some employees work less than 50 days per year



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ECONOMIC VIEWPOINT

The political economy of tax reform

ONE of the meetings to discuss the Meade Report, a "flaming" journalist commented that the proposals would do too much to bolster property ownership, and independence, and security which it with it. "Don't you see," it like hissing, "that these good things, not bad things, main trouble is that more people do not have them."

The Meade Report appears to have had a frosty preliminary reception from the Conservatives, presumably because of novelty, emphasis on economic reasoning, and the discussion of wealth and inheritance. The two reactions together make one suspect that it is a good report. But there is a reason to welcome it. It is about the only report of its kind which treats tax reform as part of political economy rather than as an esoteric exercise for tax consultants. Largely because of the personal influence of Professor James Meade, a Nobel Prize winner, most complex tax matters treated from first principles; some parts of the main body of the book are very well written. For the first time, I think I understood the Corporation Tax (CT) — at least while I had the book open.

he report can thus be read by people who do not find the intricacies of tax so very fascinating, who do not enjoy noting their evenings to personal finance and who are looking forward to seeing the Finance details, but have had enough of it.

he main conclusion of the report is that income tax should be replaced by an expenditure

tax, at least for taxpayers paying above the basic rate. This case is convincing. But to my mind the more important aspect of the report is the coherent treatment of National Insurance and social benefits, together with income tax, as part of a single personal tax system, positive and negative. We already have a negative income tax, but of a piecemeal and uncoordinated kind.

The present British system, represented by the left-hand chart, is marked by extremely high marginal rates both at the top and at the bottom ends of the income range. High marginal rates at the bottom are due to the combined effect of separate means tests on families which are above the tax threshold, but eligible for benefits. Detailed examples were given in my article last Thursday which showed a marginal tax rate of 106 per cent. for a family on £35 a week and 64 per cent. for one on £53 a week in both cases better off on the dole than work if raw earnings-related benefit and knowing the ropes of the system.

There is a basic discussion in Chapter 14 of the Meade Report of the absurdities of the present progress from high to low marginal rates and then high again. This is the worst possible compromise between redistribution and incentives. The vast majority of taxpayers are to be found in the middle ranges. Very little is collected from 83 per cent. and 98 per cent. top rates to add to the sums available either for general revenue or redistribution towards the poor. It only needs a small disincentive effect for the poor to be net losers from such rates. The collection of tax from very low income families also yields

comparatively little at a high cost in disincentive.

The best immediate way of countervailing the poverty-trap is to concentrate nearly anything available in the next Budget on raising the tax threshold and child benefits, and to leave the basic rate alone. This could be combined with cutting the penal marginal rates, which could be slashed at no real cost, except a political one — if that.

The Meade Report goes into the rate structure more deeply. Although its official conclusion is in favour of a progressive expenditure tax and "going back to Beveridge," a powerful alternative case is made in Chapter 14 for a social dividend for all and then a constant marginal rate on earnings, large or small (and irrespective of whether the expenditure or income tax method is used). The suggested system, shown in the right-hand chart, would have the interesting property of a rising average rate (important for redistribution) but a constant marginal rate.

To give every household an unconditional social dividend equal to present Supplementary Benefit would for the moment be prohibitively expensive. But a social dividend is already in existence for families in the shape of the Labour Government's new child benefits. The tax credits proposed by the last Conservative Government would be a further element — leaving a moderate gap to be filled by payments such as Supplementary Benefit or sickness and unemployment pay. (The scheme is called by Meade the Two Tier Social Dividend, or TSD, which fortunately does not make a pronounceable acronym.)

A system of this kind ought to appeal to those egalitarians who are mainly interested in

improving the lot of the poor rather than squeezing the rich for its own sake. Yet at the same time it provides the great benefit of a tax-take on marginal earnings which at no stage becomes confiscatory.

Above all, a constant marginal rate system would simplify tax problems in a way that other change would accomplish. "Averaging would be unnecessary,"

the couple's incomes were treated individually or aggregated in one way or another; and much complicated anti-avoidance legislation would become unnecessary." (P. 316.)

The advantages are so enormous that it would be worth paying a fairly high price for them. Clearly the one chance of finding political common ground on which to establish the

hidesome name. It would be related to total wealth received by bequest or gift, and stable and the true impact of changes in the rates made clear.

The expenditure tax proposal is designed to meet a different set of problems. It is somewhat misleading to say, as some of the popular summaries do that the aim is to penalise luxurious living. An expenditure tax has the entirely non-punitive advantage of being, in contrast to income tax, neutral between present and future spending.

A strong supporting argument is that we already have many elements of an expenditure tax. The 100 per cent. capital allowances for industrial plant, tax exemption for pension contributions, and relief for life insurance have the effect of exempting or relieving savings. But the result of the piecemeal superposition of one system upon another is that for some categories of saving and investment, the concessions overshoot the mark, while for others they are not enough.

A pension fund providing debt finance for the purchase of the industrial plant by an incorporated business will receive a post-tax return of 20 per cent. when the true return is 10 per cent. On the other hand a personal saver subject to a marginal tax rate of 48 per cent, who lends to an incorporated business purchasing assets other than plant, will receive a net return of 3.8 per cent. For a wealthy saver, paying the maximum tax rate, the net return on profits are distributed can be as low as 0.1 per cent.

An expenditure tax would not, as some people think, work like VAT, but be like the present income tax with the exception that capital receipts, for instance from the sale of securities,

would be added to income, and the purchase of assets deducted. The resulting simplification would be less than that arising from a constant marginal tax rate on its own. But the two together would bring the greatest benefits.

The expenditure basis would enable one to do away with capital gains tax which is only necessary because "income" is such a bad measure of capacity to pay.

But above all, an expenditure tax would make it possible to index the tax system properly for inflation. After allowing for the erosion of the principal by inflation, the real rate of return on many financial investments has been negative. Yet the nominal yield has still been heavily taxed.

Post-tax real rates of return on short-term fixed-interest loans have in recent years varied between -9 and -22 per cent. Full "capital-income" adjustment is, however, almost impossible under an income-based system: yet the question would not even arise under an expenditure-based system, where indexation of the threshold and brackets would be sufficient.

In summary, the Meade Report is really saying that the present tax and social security system is bad for incentives, inefficient as redistribution, and unfair in its widely divergent treatment of people in broadly the same material position (in the jargon "horizontal inequity"). This last aspect leads not only to injustice between individuals, but the diversion of effort, investment and saving away from the areas where they yield the highest return, and thus contributes to the national economic malaise.

Samuel Brittan

Letters to the Editor

parallel irrency

Dr Professor P. Salin

It is often believed that fully indexed parallel currency would drive out national currencies. But it now seems that a hybrid European parallel currency has to be supported by some restriction for the

owing reasons.

Discussions on such proposals have made clear that fears of the ineffectiveness of a fully indexed currency are unfounded, since a new currency is a lot of handicaps to overcome. For instance, when the value of the currency is not a large at the beginning, it has to bear information in its transaction costs and risk is so that a new currency is to be subsidised in order to compete with existing currencies. Full indexation may be the main required subsidy in an extreme view was recently expressed by R. Klein, according to him the denomination of a new currency is similar to a brand. A firm producing a new diet has to bear very high costs to sell it. In fact, there is no risk that a new indexed currency could drive out existing currencies.

Some simulations were made by the OPTICA 76 report in order to evaluate how a parallel currency would have worked in the last 10 years. It appeared that a fully indexed currency would fluctuate widely with national currencies so that holdings of such a currency would be a high degree of risk. This may be of the same kind of risk as holding foreign currencies, but it would not be borne by people having assets in national currencies. In fact, it would be borne by people having assets in national currencies. In fact, it would be borne by people having assets in national currencies.

In the case of a semi-indexed currency the cost would be negligible. Therefore, the use of indexed currency would certainly be limited for a long time external relations. A fully indexed currency would be a competitor for the Eurodollar. It is considered that the simulation of OPTICA 76 to index the semi-indexed currency and to go back to the fully indexed currency would be fully convinced by arguments and would not be the risk of seeing a rapid movement of national currencies. It would still remain able to control the speed of inflation of the parallel currency. Thus, it could be decided that a currency could not

Secure the fenlands.

From Mr. E. Bateman.

Sir — The severe and extensive storm damage on the Lincolnshire and Norfolk coasts, associated with the spring tide of January 11 has tended to divert attention from the plight of Wisbech. Seven miles inland, the town has suffered its first serious inundation since the present outfall of the river Nene was engineered 150 years ago. The new river bank has been seriously breached between Wisbech and The Wash, for the first time since its construction, with the flooding of nearly 100 acres of farmland.

Many thousands of acres of the most productive arable land in England are at risk, and the risk is increasing every decade due to the progressive settlement of the land below sea level. Evidence of the present depth of local Roman occupational levels suggests that the rate of settlement is at least a foot a century. Long-term security for the agriculturally rich fenlands and marshlands, as well as the market towns that serve them, can only be assured by a barrage across The Wash. Moreover, the fresh water so retained would be available in pure form for irrigation in the event of a recurrence of the prolonged drought experienced in 1976, when piecemeal plans were projected to reverse the direction of flow of the Great Ouse. The cost of a barrage across The Wash would be but a small fraction of the expected revenues from North Sea oil.

E. Hugh Bateman, Sandringham Cottage, Upper Bourne, Farnham, Surrey.

Accounts and their uses

From Mr. T. Shearer

Sir — In his letter (January 23), Mr. Cairns questioned the 20% balance sheet, and then suggests that it should be scrapped.

But the balance sheet is essential, because it is a statement of liquidity (or the lack of it). The monetary obligations (both receivables and payables) are listed, and in order to provide a complete picture, under the

Small company finance

From Mr. N. Cierul

Sir — The section on small company finance in the 1977 Corporate Banking (January 16) contained the now familiar noises of encouragement to owners of small businesses. Unfortunately, too many of those wishing to help have no first-hand knowledge of the way in which such companies function. Conversely the owner or manager of a small company frequently finds it difficult to communicate effectively with large organisations, financial or governmental. These "communications gaps" need to be bridged. If this important sector of the economy is truly to be revitalised.

There comes a point in the development of many small companies when they should be learning the ways in which to identify their financial needs, and how to present them to their bankers. In theory the branch manager will assist in this, but in practice many cannot, or do not.

All too often the businessman and the banker do not understand each other's point of view, so that at the very time help is needed it is not forthcoming. The bank manager may ask for a proposal to be formulated, without assisting in the task. The businessman sees a good opportunity but cannot set it out in intelligible financial terms. The bank's requirements can be done? Are such the business opportunity is missed. A more reasonable or more experienced banker

could use his skill to help the company without putting the bank at risk. His colleagues are not always able to do so.

The educational and training processes should not be restricted to managers of big companies or senior bankers. Specialist advice should be readily available on these occasions to encourage the businessman, especially now that after-tax profits are inadequate to finance short-term expansion. Some risk-taking is inevitable in these cases, and a skilful adviser can help to quantify this.

Your Industrial Editor rightly identifies the loss of "Aunt Agatha" and the lack of knowledge of sources of finance as being two serious problems for the businessman. Their professional advisers and their banks could do a particular come these difficulties. Perhaps some restructuring of the clearing banks' organisation, more on the lines of the American banks, would help to ensure that good business opportunities are not lost through the lack of finance. Thus can the small company be financed by institutions, which would fill the gaps left by the impact of taxation on the traditional sources of capital.

Norman Cival, 1, Old Burlington Street, W.1.

One virtuous taxpayer

From the Financial Director, British Airports Authority.

Sir — Colin Jones's article on nationalised industry financing (January 13) implies a ranking in terms of financial performance. It suggests that of all industries the Transport Docks Board is in the strongest position as, not only is it 100 per cent. self-financing, but has also started to pay corporation tax whereas we (the BAA), the Gas Corporation, and the Post Office only pay the self-advance tax. We would like to correct this misunderstanding. As a consistently profitable enterprise, the British Airports Authority has already paid £22m. in corporation tax including £5m. on January 1.

C. J. Burnley, 2, Buckingham Gate, S.W.1.

Simple courtesy not at Heathrow

From the Managing Director, James Fleming (Manufacturers)

Sir — After a long (and delayed) flight passengers waited 45 minutes for steps to be brought to the aircraft on Friday, January 20.

Some 20 international flights had arrived, and hundreds of passengers in the baggage hall waited patiently for clearance. Over four hours they waited with no announcements over the loudspeakers as to the delay and no airline nor airports authority staff would comment; when asked in person.

With no seats provided for old people on the point of collapse, or mothers with babies in arms, the scene was pathetic. The only three telephones had queues of 15 persons at each. What an impression this was on arrival in the U.K. — a disgrace.

If industrial disputes must intervene (and they do) why can't common courtesies be extended by informing passengers as to the circumstances and providing refreshments and seating.

Surely this is the least that can be done? James F. Flint, Newbridge Industrial Estate, Newbridge, Midlothian.

To-day's Events

GENERAL

Second session of open discussions on nuclear energy end, Brussels.

Three-day meeting between EEC Commission and Norwegian authorities on fishing quotas ends, Bergen.

Australia National Day, Australia Republic Day.

Sir John Methven, CBI director-general, addresses Industrial Society conference, Cafe Royal, W.1.

Mr. Michael Meacher, Under-Secretary, Trade, visits Hotel and Catering Exhibition, Olympia.

CBI Southern Regional Council meets, London Chamber of Commerce

Overseas Committee meets.

Sir Peter Vaneek, Lord Mayor of London, and his Sheriffs attend Pattenmakers' Company dinner, Mansion House, E.C.4.

Final day of Hires Exhibition, Wembley Conference Centre.

Final day of Amusement Trades Exhibition, Alexandra Palace.

PARLIAMENTARY BUSINESS

House of Commons: Consideration of timetable motion on European Assembly Elections Bill.

Debates on size of Hansard; broadcasting proceedings of the House; and computer-based indexing in

the library.

House of Lords: Commonwealth Corporation Development Bill, committee.

Northern Ireland (Emergency Provisions) Bill, committee.

Gun Barrel Proof Bill, report stage.

Conservation of Wild Creatures and Wild Plants (Amendment) Bill, second reading.

Debate on the Press in the light of Royal Commission's recommendations.

OFFICIAL STATISTICS

Car and commercial vehicle production (December, final), Bricks House, 14-20, St. Mary Axe, E.C.2.

ber). Energy Trends publication.

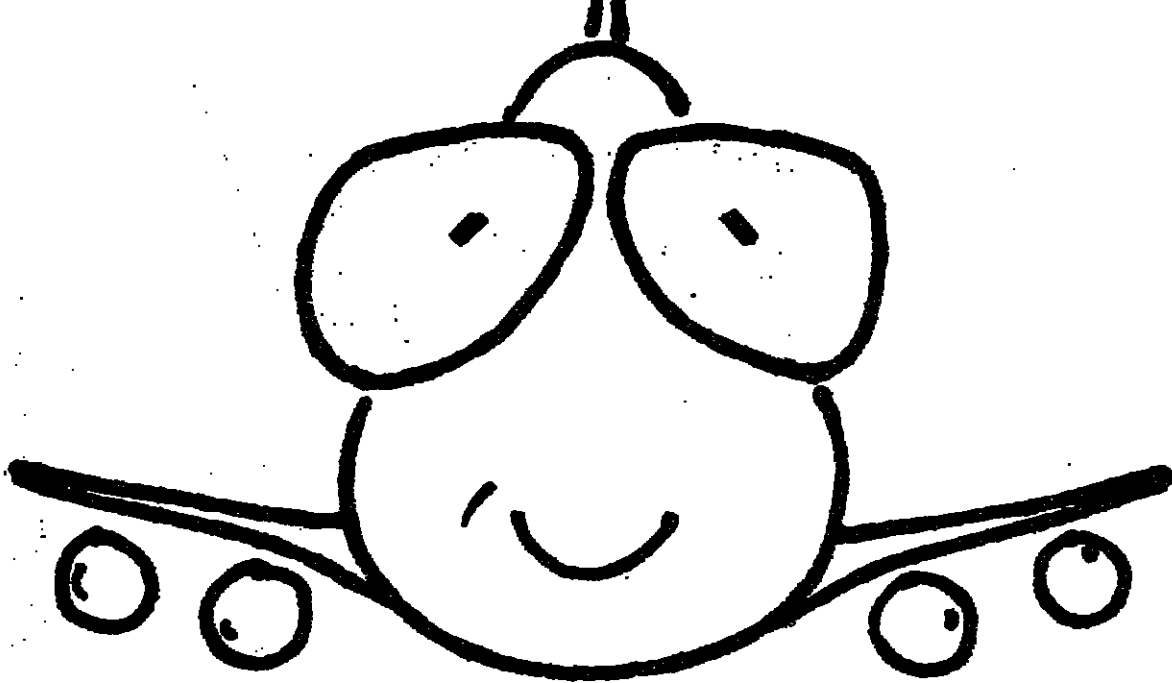
COMPANY RESULTS

British Sugar Corporation (full year), Denbyware (half-year), Fitch Lovell (half-year), Guinness Peat Group (half-year), Inchcape and Co. (half-year).

COMPANY MEETINGS

Brown (Matthew), Trafalgar Hotel, Samesbury, 12, Caravans International, Great Eastern Hotel, E.C. 12, Causton (Sir Joseph), 11, New Fetter Lane, E.C. 11.30, Davenports Brewery, Birmingham, 12.15, Proprietors of Hays Wharf, Glaziers' Hall, S.E. 12, Scottish Investment Trust, Edinburgh, 11, Trafalgar House, 14-20, St. Mary Axe, E.C.2.

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COMPANY NEWS+COMMENT

Upsurge by Union Discount to £6.11m.

AFTER PROVIDING for rebate, tax, and a transfer to inter-reserves, profits for 1977 of Union Discount Company of London jumped from a depressed £1.87m. to a record £6.11m.

The final dividend is 12.58p net per 21 unit of stock for a maximum permitted 21.053p (18.57p) total.

Total current assets at the year end stood at some £964m. (£927m.) and are stated in the balance sheet at less than market value. The average life of the assets, excluding 57m. of Government stocks was 34 days (74 days).

The published reserve has been doubled to £10m. and it is proposed to capitalise £2.5m. of this by the issue of one Ordinary 1p share for every 13 of Ordinary stock held, and to convert the shares to stock thereby increasing the issued capital to £10m. The additional stock would not qualify for the final dividend for 1977, but would thereafter rank pari passu with the existing stock.

Mr. Richard Petherbridge, senior managing director, says that 1977 was a truly remarkable year with profit greatly exceeding that for any previous year. A total of £18.90m. stockholders' funds compares with £14.46m. a year ago.

He emphasises that the proposed scrip issue has no implication as to future dividend policy but the directors believe that as the balance sheet increases so should the dividend.

The balance sheet total at the end of 1977 was £964m.

comment

In common with Alexander's Discount, which reported earlier this week, Union Discount has had a "truly remarkable year". Disclosed profits jumped from £1.87m. to £6.11m. and the three profit figures are doubtless much higher. However, the shares slipped 5p to 47p, yesterday, which did not seem a particularly fair reaction to the results. Admittedly, Union Discount is unlikely ever to register such a profit improvement again but it did manage its portfolio well. At the start of the year its gilt holdings of £58m. were quickly built up to around £55m. and then had "quite the most profitable" six months in its history. It then ran down its gilt holdings in the early summer but was able to make comfortable running profits on the bill during this period. When interest rates started to move lower in August Union re-entered the gilt market and was fortunate to have pulled out again before the two point jump in 3½% in late November. It ended the year with a bank of close to £10m. (over 30 per cent. higher than a year ago). However, this includes a lot of short bills and its profit on these will help this year's figures.

BRENT CHEMICALS

Brent Chemicals is carrying out a major corporate reorganisation to streamline its operating companies into four new product based divisions.

The principal objective is to further concentrate technical and marketing expertise into specific fields of surface technology. Each division will be viewed as a separate business centre and will market and manufacture its products internationally.

W. H. SMITH & SON (HOLDINGS) LTD.

Baring Brothers & Co. Limited, as registrars to W. H. Smith & Son (Holdings) Ltd., announce that some dividend warrants dated 24th January 1978 in respect of the interim dividend for the year 1977/78 have been found to be incorrect. A preliminary investigation of the computer records shows that, while the total amount paid out by way of dividend was correct, inaccuracies occurred as between individual accounts.

The registrars have arranged for payment of all warrants (other than those already cleared through the bulk dividend transmission system) to be stopped. Some shareholders whose warrants have already been paid will have received an overpayment or an underpayment. The registrars are taking immediate steps to rectify the position and a further announcement will be made as soon as appropriate arrangements have been finalised.

A copy of this announcement is being despatched to the shareholders of W. H. Smith & Son (Holdings) Ltd. Baring Brothers regret the inconvenience caused to the shareholders.

25th January 1978.

INDEX TO COMPANY HIGHLIGHTS

Company	Page	Col.	Company	Page	Col.
Ashdown Inv.	24	6	Mining News	26	7
Austin (James)	24	3	New Sylhet	24	4
Bids and Deals	26	4	North British Steel	25	1
Blundell-Pernoglaize	25	3	Notts Brick	24	5
Bullough	24	3	Redman Heenan	25	6
Cantors	24	4	Smith (W. H.)	24	6
Countryside Props.	26	1	Status Discount	24	5
K Shoes	26	2	Tate & Lyle	24	7
Leda Trust	25	5	Tranwood Group	26	3
Mears Bros.	24	2	Union Discount	24	1
Mills (A. J.)	24	8	Unit Trusts	25	1

Second half loss cuts Mears Bros.

A SECOND-HALF loss of £190,000 has cut pre-tax profit of civil engineering and building contracting group Mears Brothers Holdings from £216,000 to £110,000 in the year ended September 30, 1977.

Turnover in the period fell from £46.1m. to £40.1m., and after tax of £28,000 (£54,000) and an extraordinary debit of £225,000 (£239,000 credit) the group loss is £241,000 (£192,000 profit).

Half-time profit was £25,000 ahead at £200,000, and the second-half loss came despite directors saying in July that trading had been maintained at an encouraging level.

Earnings per share are given at 1.2p against 5.3p and a final dividend of 0.97p compared with 1.04p takes the total to an unchanged 1.75p net per 25p share.

comment

Full-year figures from Mears Bros. reveal a £1m. turnaround to a £190,000 loss in the second half, following a 9 per cent. pre-tax profit increase to £300,000 in the first half. The group's share price slumped 6p to 22p on the results. Its two main divisions of construction and plant distribution were hit by a series of setbacks during the latter half of the year. Turnover from construction fell by 20 per cent. over the year largely reflecting the general recession in civil engineering. However, a number of "technical problems" emerged on several contracts during the second half and construction may have made a loss during the final six months. Delays in new orders from N. Sea oil platform builders and for open-cast mining equipment also hit plant distribution during this division. Meanwhile the group's pipeline manufacturing company, A. Long Products, has recorded its tenth consecutive loss and the future of this company must be seriously in question. The shares on a maintained dividend yield 12.8 per cent.

Smith Brothers move into U.S.

Smith Brothers, a leading firm of jobbers on the London Stock Exchange, has received Stock Exchange permission to establish a California subsidiary to act as a "specialist" on the Pacific Stock Exchange. The move still needs exchange control approval, and

agreement of the West Coast Exchange.

Mr. Anthony Lewis, the chairman, explained that the subsidiary would be making a market in a number of large American companies the names were not yet finally decided upon—and that the move reflected his feeling that this was an "advantageous" moment to get into the American market.

He believed that Smith would be the first British stock jobber to act as a specialist on a U.S. stock exchange.

Bullough reaches £3.05m.

TURNOVER FOR the year to October 31, 1977, of the engineering group Bullough expanded from £22.13m. to £29.23m. and pre-tax profits advanced from £2.15m. to a record £3.05m.

In July, reporting mid-term profits ahead from £0.83m. to £1.43m., the directors said they expected second half profits to be in line with those of the first.

They now say that the current year has started well and the outlook is for a further improvement in earnings which will be augmented by a contribution from Newman Granger for which a bid has been made.

Capital investment was again about £1m. and substantially higher expenditure is planned for the current year to meet higher demands and to achieve greater efficiency.

This year's increase came from several sources. A buoyant caravan industry demand more than working from B and B Trailers

J. Austin downturn

REFLECTING A reduction in the amount of stock appreciation, taxable profit of James Austin Steel Holdings for the year ended September 30, 1977 dropped to £406,023, compared with £522,786, which was inflated by increases in steel prices. Turnover was marginally reduced from £5.92m. to £5.88m.

No major improvement in demand or in profit margins is anticipated in the near future, although the current effort to promote price stability in the steel industry is a hopeful sign, the directors. It is likely, however, that full year profit will be comparable with the previous year's £557,908.

After tax of £212,000 (£273,000) first half net profit was reduced from £30,786 to £194,023. The interim dividend is stepped up to 2.5p (2p) net, costing £67,500 (£80,000)—last year's final was 3.271p.

It is intended for tax reasons to pay interim after April 5 in future, and the increase in the current dividend is to reach rate holders for the later payment.

Turnover in the steel division has been maintained to the half-way stage, say the directors, but the appreciation of sterling internationally is making export business more difficult to obtain; consequently, turnover is expected to be slightly lower for the full year. However, profit margins excluding the influence of stock appreciation are somewhat better and it is hoped to maintain this improvement.

The engineering division made only a small contribution to the half-year profit, they add. Trading conditions in the structural steelwork industry are still in a depressed state and it is not expected that the full year's result of this division will reach the level achieved in 1976-77.

The group has continued to hold adequate cash resources but, due to the fall in interest rates,

and this led to a higher profit. Beasdale Shipping achieved a record profit from a major uplift in exports. Projects Office Furniture also ran at capacity and produced a record profit. The electrical and special products division increased profits. Drugs made a loss as a consequence of the restrictions of imports by Nigeria but the subsequent concentration of effort in the Middle East should begin to bear fruit in the current year.

Project Office Furniture, purchased back in 1976, is certainly earning its keep at Bullough, accounting for over two-fifths of the latest pre-tax improvement.

Project's advance comfortably offset the £100,000 loss in the tract furnishing company Drugs, where trade suffered because of import controls in Nigeria. The Nigerian sales operation has been terminated, and Drugs is now concentrating on Middle East markets. Hago Products also incurred losses reflecting poor demand for TV stands coupled with management problems, but this side has since traded profitably.

For the rest the continuing revival of self catering holidays helped profits in the caravan and chalet companies, B and B Trailers, while Beasdale sales were boosted by strong export markets in the Middle East and Eire.

While the balance sheet will suffer from the purchase of Newman Granger for £1.75m. cash, there will be a nine-month contribution to profits of £120p (12p) the shares yield 10 per cent. covered 5.6p, and stand on a p/e of 4.6, 5.9 fully taxed.

The current year has started well with a strong demand for the company's merchandise, say the directors, who feel that they have developed a formula which is proving successful and that the company is in an excellent position to take advantage of the predicted increase in consumer spending, particularly in the DIY and home improvement sector. They are confident that 1977-78 will be a year of further substantial growth.

Total dividend is hoisted to the maximum permitted 4.05p (1.825p) set with a 3.409p final, (3.15p) per 10p share.

The directors point out that full-year results have fully justified their policy of selling out-label kitchen units and decorating products at competitive prices and the company has reaped the benefit of the up-grading of many of its stores.

During the year, six new stores were opened and the company was operating from 53 locations at the year end. Since then they have opened another four new stores and at least a further seven are to be opened this year. The programme for the disposal of the less profitable stores is almost completed; 16 outlets having been sold or closed since January, 1977.

The total net selling area occupied by the company increased during the year from 335,000 square feet to 413,000 square feet.

The improvement in the property market enabled the company to sell and leaseback three major properties. The proceeds

of the sale of the three properties are being used to finance the purchase of new properties.

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DIVIDENDS ANNOUNCED

Company	Current payment	Date of payment	Corresponding date	Total for year	Total last year
Ashdown Inv.	2.85	Mar. 23	2.4	4.05	3.4
Blundell-Pernoglaize	2.85	Apr. 6	2.4	4.05	3.4
Bullough	2.85	Apr. 6	2.4	4.05	3.4
Cantors	2.85	Apr. 6	2.4	4.05	3.4
A. J. Mills	2.85	Apr. 6	2.4	4.05	3.4
Hambros Trust	2.85	Apr. 6	2.4	4.05	3.4
Leda Inv.	2.85	Apr. 6	2.4	4.05	3.4
Mears Bros.	2.85	Apr. 6	2.4	4.05	3.4
A. J. Mills	2.85	Apr. 6	2.4	4.05	3.4
New Transcoast Int.	2.85	Apr. 6	2.4	4.05	3.4
Status Discount	2.85	Apr. 6	2.4	4.05	3.4
Tate & Lyle	2.85	Apr. 6	2.4	4.05	3.4
Union Discount	2.85	Apr. 6	2.4	4.05	3.4
Vagelstrubhult Metal	2.85	Apr. 6	2.4	4.05	3.4

Dividends shown pence per share net except where otherwise stated.

Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. ‡ First interim for 1977-78 to be 3.1p.

Status Discount turns in record £1.7m.

PRE-TAX PROFITS for the year have been used to repay the ended November 30, 1977, of £24m. medium-term loan and a mortgage of £147,000—thereby reducing the overall medium-term debt from £1,778,000 to £1,531,000.

At mid-way, when reporting profits of £296,000 (£215,000), the directors said that provided the present level of business continues, the full-year results should show a considerable improvement.

The current year has started well with a strong demand for the company's merchandise, say the directors, who feel that they have developed a formula which is proving successful and that the company is in an excellent position to take advantage of the predicted increase in consumer spending, particularly in the DIY and home improvement sector. They are confident that 1977-78 will be a year of further substantial growth.

Total dividend is hoisted to the maximum permitted 4.05p (1.825p) set with a 3.409p final, (3.15p) per 10p share.

The directors point out that full-year results have fully justified their policy of selling out-label kitchen units and decorating products at competitive prices and the company has reaped the benefit of the up-grading of many of its stores.

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Tate & Lyle falls £8.6m. to £43.9m.

THE CONTINUING depression in world trade and a temporary stagnation in the sugar market allied with higher finance charges has left pre-tax profit of Tate and Lyle £8.6m. lower at £43.9m. in the September 30, 1977, year.

Turnover for the year declined from £1.34bn. to £1.26bn., and the profit was after central expenses up from £3.7m. to £14.1m.

These expenses included a £2.2m. finance charge compared with a £1.5m. credit, as well as administration costs of £4.8m. (£3.1m.) and research and development expenditure of £2.2m. (£1.1m.).

Mr. John O. Lyle, chairman, says the substantial capital expenditure programme undertaken resulted in higher finance charges.

He says that 1978 will be another year of consolidation and says the group has a good base in which sound businesses which can be expanded and will remain well placed for long-term prosperity.

The company has broadened its international base and this proved a source of strength in a difficult year, and directors are confident that the acquisitions and investments made will sustain the group's plans for long-term growth, he says.

A breakdown of the trading profit of £38m. (£30.2m.) shows the largest fall was in commodity handling, trading storage and distribution where the contribution was cut from £24.9m. (£21.4m.) while the dividend has been fully restored for a yield of 4.7 per cent. at 134p. Moreover, following a sale and leaseback operation, borrowings, which last year totalled £2.2m. are almost eliminated. Demand for the two main product lines, kitchen equipment and paints, has been strong and volume from existing outlets is about 25 per cent. higher.

Demand for wallcoverings, where volume in the industry has been falling for about 10 years, now appears to be recovering and following increased promotional expenditure overall trading remains very buoyant. What is more, higher volume and the significant reduction in interest charges will mean an even greater impact at the profits level.

Gross revenue for the year to November 30, 1977, of Ashdown Investment Trust rose from £20,988 to £29,224 and, after lower expenses and interest totalling £2,576,738 against £2,851,149, pre-tax revenue increased from £23,339 to £26,555,566.

With tax taking £20,820 (£188,487) earnings are shown to be ahead from 3.57p to 4.29p per 25p share and the dividend is lifted from 3.4p to 4.04p net with a final of 3.55p.

The net asset value per share is given as 180.2p (138.1p) including the full interest currency premium and 175.5p (136.9p) fully diluted.

Barings Brothers and Co., registrars to W. H. Smith & Son (Holdings) Ltd., announce that some dividend warrants dated January 24, 1978 in respect of the interim dividend for the year 1977/78 have been found to be incorrect.

Preliminary investigation of the computer records shows that, while the total amount paid out by way of dividend was correct, inaccuracies occurred as between individual accounts.

The registrars have arranged for payment of all warrants (other than those already cleared through the bulk dividend transmission system) to be stopped. Some shareholders whose warrants have already been paid will have received an overpayment or an underpayment. The registrars are taking immediate steps to rectify the position and a further announcement will be made as soon as appropriate arrangements have been finalised.

A copy of this announcement is being despatched to the shareholders of W. H. Smith & Son (Holdings) Ltd. Barings Brothers regret the inconvenience caused to the shareholders.

25th January 197

**+TATE
LYLE**
*Out of sweetness
came forth strength*

Countryside Properties

soundly based

The steps taken by Countryside Properties during the past few difficult years have produced a better and more efficient organisation and the group can look forward to the future with a sound asset base, a stock of good buildings and a greater degree of self-sufficiency from its own construction division, Mr. S. Bolcott, chairman, tells members in his annual report.

He reports that the current level of trading is encouraging and forward reservations for new house sales are well up on the past few years. A further significant increase in profitability for the current year is expected.

Involvement in commercial property development has continued on a cautious basis although several new projects are now being actively considered and this sector is being kept under constant review.

As reported on January 15, taxable profit for the 15 months to September 30, 1977, amounted to £241,000, compared with £200,000 for the previous 12 months. Turnover during the period totalled £11.1m. (£10.8m. in 1976).

A reduction in provisions shown in the balance sheet was brought about by progress made in completing the development of sites against which provisions were made in earlier years.

Current land stock comprises in the main sites acquired during the last two years and the directors consider its present aggregate value to be higher than that shown in the balance sheet.

The group has sufficient land to meet output at current levels for the next two to three years. In addition the purchase of further sites is continually being reviewed.

A statement of source and application of funds shows that the group has a strong financial position.

Satisfactory start by K Shoes

Mr. Spencer Crookenden, the chairman of K Shoes, says in his annual statement that K Shoes have made a satisfactory start to the new year and prospects look brighter for manufacturing, since the factories are busy and should remain so well into the spring to cope with the orders already in hand.

In a highly competitive market, faced with a huge inflow of imported shoes, but we believe that our better styling, higher quality and more diligent service will help us more towards a satisfactory level of profit, he tells members.

As reported on December 14, pre-tax profits rose by 33.5 per cent. to £2,09m. for the year to September 30, 1977 on turnover 9 per cent. higher at £43.5m.

A statement of source and application of funds shows a decrease in cash balances of £397,000 (£247,000 in 1976).

It was a difficult year for the manufacturing company, K Shoes, but K Shoes has had another record year and did not lose sight of the fact that the buoyant trading in late August and September.

During the year, new shops were opened in Rochdale, Derby and Lincoln. Existing shops at Torquay, Leicester, Putney and Birmingham were refitted and group as a whole.

enlarged. Two small shops were closed leaving 201 shops at the year end. The group's AGM will be held at Winchester House, E.C. 4, on February 22, at 11 a.m.

Tranwood advance

In the six months to July 31, 1977, Tranwood Group earned a profit of £33,000, but only by virtue of a £111,000 contribution from temporary employment subsidies.

Although the subsidies will be reduced considerably in the second half, the directors feel improved trading performance should produce a profit similar to the first half.

In the year ended January 31, 1977, the group incurred a loss of £124,138 of which £26,000 came in the first half.

No adjustments have been made in respect of the disposal of 30 per cent. of the capital of Benson's (Holdings). Maurice James Industries will now acquire 38.93 per cent. of the capital of Benson's including 9.05 per cent. of the subsidiary of Tranwood and will continue to provide financial and management support to the group as a whole.

Redemption Notice

City of Oslo (Norway)

9% Sinking Fund External Loan Bonds due March 1, 1988

NOTICE IS HEREBY GIVEN, pursuant to Fiscal Agency Agreement dated as of March 1, 1976 under which the above described Bonds were issued, that Citibank, N.A., Fiscal Agent, has selected by lot for redemption on March 1, 1978 through the operation of the Sinking Fund, \$3,600,000 principal amount of said Bonds at the Sinking Fund redemption price of 100% of the principal amount thereof, together with accrued interest to the date fixed for redemption. The serial numbers of the Bonds selected by lot for redemption are as follows:

BOND NUMBERS																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
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BIDS AND DEALS

Racal group purchases

Fairey Electronics

Fairey Electronics, one of the two non-aviation subsidiaries of Racal, has been bought by the National Enterprise Board, a subsidiary of Racal Electronics, for £700,000.

While not a major move in financial terms, the purchase of Fairey Electronics is a significant step in building up 'interests in the field of communications security. Fairey Electronics manufactures a range of security electronics equipment, including telephones, scramblers, which are said to complement the activities of Racal-Datacom, which also takes in security systems for computers and radio.

It is expected that the acquisition could boost Racal-Datacom's current annual turnover of £4m. to around £8m. in 1978-79. It is further anticipated that the number of people currently employed—around 60 for Fairey and 140 for Racal-Datacom—is likely to increase.

In the meantime, Sir Charles Hardie, the Receiver of the Fairey group as a whole, is continuing to negotiate for both the sale of the aviation interests, under the terms of the agreement, to the British Aerospace (Bembridge) group, and Fairey Stainless, the remaining non-aviation subsidiary.

Mr. R. W. Holder, the former chairman of Fairey, has been appointed to the Board of the National Enterprise Board, an international as a non-executive director. Mr. Holder said his decision had been based on his being 'aware of the possible conflict between his position as chairman of the subsidiary of Tranwood and his position as chairman of the National Enterprise Board, and as a major shareholder, and as someone with an interest in pur-

chase of assets being sold." Mr. Holder's appointment to UKO, which avoided being taken over by Pilkington Brothers last March following a Monopolies Commission ruling against the bid, comes after the recent departure from the Board of Mr. G. B. Cooke and Mr. D. C. Schuman.

Mr. Holder remains chairman of Bridport-Gundry and a director of Stone Platt Industries.

REVERSAL IN HARCROS BATTLE

McLeod Russell and allies suffered a reversal yesterday in their attempt to block Harcross and Crossfield's bid for Harcross Investment Trust.

The Stock Exchange rejected an application for associates of H. and C. to be prevented from voting in favour of the bid without consulting shareholders.

The Harcrosses own over 4 per cent. of Harcross, which is an important stake in view of the fact that H. and C. already has 30 per cent. of Harcross. If H. and C. obtains 50 per cent. acceptance, then the bid will go unconditional.

The McLeod Russell consortium had hoped to prevent the H. and C. bid by securing a 50 per cent. acceptance of the bid without obtaining the consent of shareholders on the basis that acceptance would constitute a Class 4 transaction. Class 4 transactions, as defined in the Stock Exchange listing rules, include those between companies and substantial shareholders, and normally needs shareholders' approval.

But the Stock Exchange decided that the Class 4 transaction in this case was a bid being made in the hands of the Takeover Committee, and therefore not subject to the provisions of the Takeover Code forbidding the votes of the associates.

Meanwhile, in pursuit of Harcross, H. and C. yesterday sent to Harcross shareholders a letter encouraging them to accept its offer. The value of the share exchange offer has risen recently and yesterday was worth 89.3p net of H. and C. shares at 87p.

On another front in the war over H. and C's empire, McLeod Russell announced on Tuesday that it had sold its 32.3 per cent. stake in Malaysia at 35p per share. McLeod Russell made bids for Malaysia last December which H. and C. topped with a cash offer of 30p per share or a share alternative. McLeod Russell withdrew from the auction on the 17th January, this year, and has now sold its Malaysian shares to institutions who wish to buy H. and C. via the share exchange offer.

McLeod Russell has realised over £2m. from the sale and expects a profit of £1.3m. But Mr. John Campbell of McLeod Russell's advisers Noble Grossart emphasised yesterday that a quick capital profit had been the intention. McLeod Russell had wished to buy a long-term investment in Malaysia's estates.

ICFC BACKING

The Industrial and Commercial Finance Corporation has granted a long-term loan of £100,000 to Chemodex Packing, a private company engaged in the handling and packing of toxic materials.

Chemodex, which was formed two years ago by Mr. Martin Sartorius and Mr. Gerard Scott, has used the finance to purchase a freehold factory at the Millbrook Trading Estate, situated near Southampton.

At the new premises, facilities have been installed to formulate, blend and repack both liquid and powder chemical products.

SIEMSEN HUNTER

William P. Solomon, the cigarette and tobacco distributing subsidiary of Siemsen Hunter, has acquired the business of Cornish Match Company, which was started some 15 years ago by David and Rosemarie van der Plank.

INTERNATIONAL FINANCIAL AND COMPANY NEWS

Landis and Gyr recovery

BY JOHN WICKS

ZURICH, Jan. 25.

A MARKED improvement in business is announced for the past year by Swiss-based electrical engineering concern, Landis and Gyr. In a letter to shareholders, parent company Landis and Gyr AG of Zug, says that 1977's favourable results will permit an increase of dividend to 10 per cent, as well as the issue of drawing rights for new stock at a ratio of 1:15.

This marks a return to the company's pre-recession rights issue practice and a step towards the 12 per cent dividend which had been distributed every year from 1965 until and including 1974.

In the group's difficult period there was a group loss of Sw.Frs.34.2m. for 1975 and a marginal profit of Sw.Frs.1m. in the following year—dividend had

been reduced to 6 per cent and no drawing rights were issued. Total profits for 1977 are now put at some Sw.Frs.41m., or at about the same level as for 1974. This represents a yield of 6.3 per cent on equity and 3.8 per cent on production value, which the Board says is still insufficient in an international interest framework for the retention of competitive ability. Efforts are therefore being made to bring about a further improvement of profits.

In the business year 1977, group turnover was up 14 per cent on Sw.Frs.1,039m. or if the acquisition of the U.S. meters manufacturer Duncan is excluded, by 5 per cent to Sw.Frs.988m. Including Duncan, which the Swiss parent says has made

a gratifying contribution to the overall improvement, orders received during the year went up 22 per cent to Sw.Frs.1,120m. and actual production by 21 per cent to a value of Sw.Frs.1,070m.

The sharpest rise—one of 84 per cent—was in cash-flow, including Duncan's results, this was up from Sw.Frs.18.8m. in 1975 and Sw.Frs.54.7m. in 1976 to Sw.Frs.101m. last year. This is more than the pre-recession figure of Sw.Frs.89.3m. booked in 1974.

The production value is said to have increased faster than labour costs, due to a better use of available capacities, while systematic cost control, the reduction of bank loans and the decline in interest rates also had a positive effect on results.

EUROBONDS
Citicorp
opts for
Australian
dollar

By Mary Campbell

CITICORP yesterday launched an A\$15m. issue as part of a long term plan to extend the maturities of its non-U.S. dollar liabilities. The issue offers an indicated coupon of 10 1/2 per cent on a five year maturity, with a "bondholder's" option to extend for a further five years.

The lead managers for the issue are First Boston (Europe), Banque Nationale de Paris and Kuwait Investment Co.

There are two particularly significant aspects to the issue. The first concerns the use of the Australian dollar in the international bond market, and the second Citicorp's general policy towards external capital raising activities.

The two Australian dollar issues that have been arranged in the last 18 months are both standing at significant discounts—up to six points below par. They offered 10 per cent coupons. In addition to the more generous coupon, a further feature of the Citicorp issue which may help it compared with the others is a purchase fund which will retire up to 10 per cent of the issue in each of the first four years of its life.

Citicorp's intention in raising money in this somewhat unusual currency is to provide it with a medium to help it manage changes in the value of the Australian dollar (all payments for the issue will be made in U.S. dollars, but the number of U.S. dollars paid will depend on the exchange rate at each payment date).

A spokesman for Citicorp said yesterday that the decision to raise money in Australian dollars was not directly related to the real estate losses the bank has made in Australia. However, Citicorp does have sizeable assets denominated in Australian dollars.

Citicorp's lengthening of the maturities of its non-U.S. dollar liabilities started about three years ago, with a floating rate funding on the French franc domestic market worth some \$100m.

Within the last month, Citicorp has raised Sw.Frs.130m. bond issue. It seems that although Citicorp does not have any firm immediate plans to raise funds on any other markets, it would consider issues in any currency where it deemed the interest rates were currently attractive.

It would apparently regard the rates currently being paid by the European Investment Bank on its Eurosterling bond as a case in point.

In general, the dollar sector was slightly easier yesterday in the conditions. Canadian dollar bonds fell sharply—by about 10 points—as a result of some big blocks coming onto the market dealers said. The D-mark sector was quite active again, but there was no clear price trend.

Arbed deal with Saar steel works

Financial Times Reporter

THE TAKEOVER of the German steel plant Saarwerk by the Luxembourg Eisenwerke by the Luxembourg steel company Arbed will be set in motion by Arbed's purchase of the Neunkircher capital, which will then be transferred to Roehling. Arbed already owns half of Roehling-Burghard.

The Luxembourg company will pay for the Neunkircher capital with 4 per cent of its present capital, which is to be increased. Arbed's shares were valued in the 1976 accounts at Lux.Frs.6.50m. Neunkircher Eisenwerke has a basic capital of DM135m.

The Roehling family will be paid in its shares in the company. Roehling-Burghard, a stake of 5.6 per cent in Arbed, also to be effected through an increase in capital.

Arbed will pass on its claim on Roehling-Burghard to the Neunkircher share transfer to the Roehling family.

The full integration of the two Saarland steel companies into Arbed will require the Luxembourg company to raise its present capital by between 10 and 14 per cent with the present joint owners of Neunkircher, Otto Wolf and Mabamart, and the Roehling family each having a 10 per cent stake in the increased capital.

Arbed said the restructuring of the Saarland and Luxembourg steel industries, once this integration has gone through, will be effected on the principle of equal treatment in the case of both run-downs and expansion.

The new grouping would have a total annual steel capacity of some 100m. tonnes.

Arbed hopes the whole series of transactions could be completed in the next few months.

There is no indication that the Federal Government plans to add any of its own funds to the new grouping. The Federal and Saarland state Governments agreed last month to guarantee bank credits of DM200m. to Neunkircher Eisenwerke, which last year cut its workforce to 7,900 from over 8,000 in the face of continuing heavy losses.

Arbed said the Roehling family will also receive an undisclosed cash sum when the deal is implemented. The claim on Roehling-Burghard the claim on Roehling-Burghard's 58 per cent stake in Gerlach-Werk GmbH. The settlement of the balance will be deferred until Roehling-Burghard can produce this from its own earnings.

AMERICAN NEWS

Battle erupts over Sun-Becton bid

BY STEWART FLEMING

TWO SUITS were filed to-day challenging one of the most orthodox takeover attempts which Wall Street has seen for several years. The deal threatens to expose weaknesses in the rules of the New York Stock Exchange as well as in the panoply of State and Federal takeover laws littering the U.S. business scene.

These laws were mostly passed in the late 1960s and early 1970s to protect companies and their shareholders from what became known as "Saturday night" raids which swept control of a company away from its shareholders in a matter of hours.

Last week the clock seemed to have been turned back to those halcyon days of the conglomerate mania when Sun Company,

the thirteenth largest U.S. oil company, suddenly disclosed that it had acquired 34 per cent of Becton Dickinson, a major hospital supplies company, for \$290m. and was probably ready to acquire the rest of the company for the equivalent of another \$600m.

Already this week, lawsuits have been filed charging that Sun is breaching U.S. securities laws, and Becton itself is fighting on the grounds that the acquisition of the 34 per cent stake, carried out in intense secrecy with the help of New York investment bankers Salomon Brothers, is illegal.

Sun Company bought the bulk of its stake from two dozen institutional investors in a matter of days beginning a week ago last Monday. But the transactions were not put through the floor

of the New York Stock Exchange as required by NYSE Rule 390. Was the rule breached, and if not, how was it circumvented? Federal securities laws, principally the Williams Act, passed initially in 1968, require that takeover offers are made fully open to all shareholders, must be kept open for 10 days and open equally to all shareholders on a pro-rata basis. None of this happened, which suggests that Sun Company does not see its move as a takeover offer, even though the 34 per cent holding under Becton's corporate charter is enough to block a rival bid.

One New York corporate lawyer put it to-day: "If you can do what they have done, there is a big hole in the Williams Act."

Finally what about the institutions who sold, one of whom reportedly had in its bank trust

department 1m. of Becton's 15m. shares, or a number above the 5 per cent required for disclosure. Since bank trust departments are managing money generally on behalf of other beneficial owners it is a moot point whether they have to make this disclosure.

Clearly the Sun Company-Becton Dickinson case is raising a thicket of legal questions, and it is far from clear which interpretation of the laws is right. The deal is undoubtedly one of the most aggressive takeover bids for years involving major companies as opposed to the slightly less sedate go-go conglomerates and will be used as further evidence by those who feel that the U.S. merger wave which continues unabated, is getting out of hand.

HAL results
worse than
expected

By Charles Batchelor

AMSTERDAM, Jan. 25.

HOLLAND AMERIKA Lijn (HAL) said it made a loss of more than Fls.20m. last year largely due to the poor performance of its Irish shipyard subsidiary, Ross Company.

This result is worse than HAL was expecting last September, when it forecast it would about break even in the second half of 1977 after making a net loss of Fls. 5.2m. in the first six months. It made a net profit of Fls.8m. on sales of Fls.469m. in the whole of 1976.

According to provisional figures for 1977, operating losses by Ross and book losses from the sale of the company in December accounted for Fls.16m.

HAL sold Ross to a private Dutch businessman who it declined to name. It fully wrote off the yard in its 1977 accounts.

Apart from the considerable loss, by the special transport division, including the Ross yard, the result of the tourism division was also lower than in 1976. However, trading operations improved, partly due to new acquisitions.

In October HAL announced it had agreed the acquisition of Rosta NV of Ternat in Belgium. Rosta imports and distributes speciality foods, wines and non-food products in Belgium.

Modest Aral sales rise

BY GUY HAWTHIN

FRANKFURT, Jan. 25.

ARAL, West Germany's largest petrol filling station operator, saw sales up DM10bn. for the first time last year. Growth, however, could hardly be described as spectacular as sales rose by only 0.4 per cent from 1976's DM9.9bn. to DM10.3bn., of which mineral oil accounted for DM4.7bn. against DM4.4bn.

There was little wrong with demand for the concern's mineral oil products—volume sales went up 6 per cent from 8.7m. to 10.2m. tonnes. But as the concern indicated in June last year, earnings took a pound- ing: in 1976 they rose from 1975's DM19.3m. to DM28.4m.

Behind the earnings decline lies a story of hard competition. According to today's preliminary report, the average petrol price for 1977 was the same as the year's end as at its beginning. In the second half of the year prices fell by six pennings a litre.

It was also impossible to

improve earnings in the diesel oil market, said Aral. At the same time, the whole of its fuel oil business has been considerably affected by the high losses in the mineral oil processing sector.

In spite of this, Aral, which operates some 6,800 filling stations, has cause for satisfaction on its retailing side: filling station sales rose by 10 per cent, while diesel oil sales rose by a good 5 per cent. Overall, the concern fully maintained its market position.

Aral has also done well abroad. About 2,300 filling stations in neighbouring countries carry Aral fuel and filling station demand rose by 8 per cent compared with 1976's performance. In volume terms, Aral's overseas business rose by 5 per cent compared with the previous year to about 740,000 tonnes of mineral oil products.

Aircraft group write-offs

AMSTERDAM, Jan. 25.

THE DUTCH division of the Fokker-VFW aircraft group said the book value of its participation in Zentralgesellschaft VFW-Fokker Dueseldorff holding was a write-off of the latter's free reserves.

Dutch Fokker said the estimated DM150m. accumulated losses from cancellation of the VFW 614 jet project and reorganisation of the German operating companies are equal to Zentralgesellschaft's free reserves. The company explained the German

government has demanded that these losses be directly charged against free reserves.

The Dutch aircraft company said the losses passed on to it in 1977 were due to cancellation of the VFW 614 short-haul jet at the end of last year will also have to be met from its reserves. It added that neither of the holding companies in the German-Dutch link-up will receive a dividend from the Zentralgesellschaft until the German government's interest-free loan of up to DM110m. has been repaid.

Notice of Redemption
Transocean Gulf Oil Company

8% Guaranteed Debentures Due 1986

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Indenture dated as of March 1, 1971, under which the above-described Debentures are issued, \$3,800,000 aggregate principal amount of such Debentures, of the following distinctive numbers has been drawn for redemption on March 1, 1978 (hereinafter sometimes referred to as the "redemption date"):

1980 Coupon Debentures Bearing the Prefix Letter 2C									
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1070	1071	1072	1073	1074	1075	1076	1077	1078	1079
1080	1081	1082	1083	1084	1085	1086	1087	1088	1089
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1470	1471	1472	1473	1474	1475	1476	1477	1478	1479
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1620	1621	1622	1623	1624	1625	1626	1627	1628	1629
1630	1631	1632	1633	1634	1635	16			



Meet the Irresistible Force.

Massey-Ferguson come up against some tough jobs around the world. But with dozers like the MF D400C, we can take them all in our stride.

Our engineering expertise makes productivity, reliability, fuel efficiency and low noise level all part of our MF D400C.

They're also qualities we are building into our range of more than 40 different industrial and construction machines. Qualities that have made us a world leader in this highly competitive market.

With such technically advanced products, backed by long-established servicing and distribution in 190 countries, it's small wonder our ICM business has grown 60 per cent in the last two years.

It all adds up to an irresistible argument. When you have a tough job that needs to be tackled efficiently, you must consider Massey-Ferguson.

MF
Massey Ferguson

Narrowly mixed but gilts record small technical rally

Equities well above worst with index 0.2 off at 483.2

Reassuring comment on the short-term market trend imparted steadiness to gilt-edged securities. Opening quotations were marginally lower, but slightly above the previous evenings late levels, and the efforts of cheap buyers soon instituted a firmer

course. Mears Bros. fell 6 to 22p. after 21p. on news of the sharp contraction in profits, while Richard Costain gave up 6 to 270p as did Taylor Woodrow to 406p. Tarmac cheapened 3 to 141p. but Burnett and Hallamshire gained 4 to 174p and JCEG moved up 3 to 30p in a thin market. Blundell Permozlase hardened a shade to 67p following

Year	Price (Pence)
1980	260
1981	265
1982	262
1983	268
1984	265

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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minent. Jamesons Chocolates, 73p, and Needlers, 30p, rising 4 apiece. G. F. Lovell remained active, improving afresh to 40p following Press comment before closing only a penny better on the day at 34p after the company's

Carpels International remained unsettled, losing 2 to 43p for a two-day loss of 10 on the depressing trading statement and likely final dividend omission.

Platinums active

Platinums active
Although activity and price movements were by no means as strong as the previous day Platinums continued to attract a good two-way business. Profit-taking was only partly met by

The bullion price was finally \$1 firmer at \$177.375 per ounce and the Gold Mines index improved for the fifth consecutive trading day to register a further 1.1 gain at 161.0.

Continental demand for Durban Deep, 30 to the good at 330p, and East Rand Prop., 26 firmer at 416p.

Financials were quietly mixed. General Mining hardened $\frac{1}{2}$ to £153 and Union Corporation $\frac{1}{2}$ to 416p.

ment is imminent in Rhodesia lifted Falcon Mines by 5 to 195p and Rhodesian Corporation 3 to a 1977-78 high of 34p. Wankie Colliery hardened a penny to 39p.

RISES AND FALLS YESTERDAY			
	Up	Down	Same
British Funds	56	3	15
Corps., Dominions and Foreign Bonds	2	6	58

Foreign bonds	2	0	38
Industrials	315	410	853
Financial and Prop. ...	104	123	294
Oil	4	13	16
Plantations	8	4	22
Mines	44	36	43
Recent issues	6	6	41
Totals	530	601	1,347

10 a.m. 4814. 11 a.m. 4857. Noon 4901 1 p.m. 4917.
2 p.m. 4877. 3 p.m. 4874
Latest index 61-246 8026. 60-8326.
* Based on 62 is a cent. corporation tax. 60-8326.
Based 100 Govt. Secs. 12 1/2 to 100. Fayed 100, 1928. Ind. Ord. 1-1725. Gold
Ind. Ord. 1942.

HIGHS AND LOWS				S.E. ACTIVITY	
P.H.T.		Range Completion %		Jan. 23	Jan. 24
High	Low	High	Low		

	1985	1986	1987	1988	1989
Govt. Sec...	79.85 (100.0)	60.45 (41.1)	127.4 (31.2)	48.18 (11.5)	217.3 (209.9)
Fixed Int...	81.27 (100.0)	60.49 (44.1)	150.4 (51.4)	30.53 (11.5)	68.1 (68.2)
Ind. Out...	549.2	357.6	549.2	484.4	199.8

Gold Mines	174.5	95.1	442.5	43.5	Special Div.	127.8	123.5
	(12.10)	(12.10)	(12.10)	(12.10)			

OPTIONS TRADED				
DEALING DATES				
First Dealings	Last Dealings	Last Declaration	For Settlement	
Feb. 6	Mar. 27	Mar. 10		Woolworth, Highland Distillers, London and Northern, Rowlands Construction, Berkeley Ham, P. and O. Deferred, Pauls & Whites, Tricville, Spoor, H.

Feb. 24	Feb. 6	Apr. 25	May 10	Wharf, British Land and London
Feb. 7	Feb. 20	May 11	May 23	Erick. Pats were done in C
Feb. 21	Mar. 6	May 25	Jun. 7	Heath, GEC, Glaxo, S. W. W
Stocks	to attract money for			and Berkeley Hambro, wh
call included	Mount Lyell.			doubles were arranged in Bo
Bessups, Burma	Oil, Armour			McJannell, KCA, Talbot U
Manageme	Franz En			

Uss, Manganese, Bronze, Edush Property, Rustenburg Platnam, Town and City Properties, Consolidated Gold Fields, Oil exploration, Sound Diffusion, Van Hunter, Fraser Ansbacher, Harrow, Lor Service, East Rand

NEW HIGHS AND LOWS FOR 1977/78

The following securities quoted in the Information Service yesterday	Emboss Services Enslin	Siebn Gorman Sketchley
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NEW HIGHS (89)

William Sloan Hafnia	Wellsco Wood Hair Trust
May (Norman)	MOTORS (3) Quick (H & J)
E R F An Imation Metal	NEWSPAPERS (1) Webster's Pub
FOREIGN BONDS (1) '85-'88	PROPERTY (5)
BANKS (2)	

Immerbank	BANK (1)	Deutsche Bank	PROPERTY (1)	Garage (R.I.)
Cambridge	BUILDINGS (6)	Howham Res. Vtg.	Carding Group	Clarke, Nicholls
th		McNeill Group	Clarke, Nicholls	Magnificent Estate
Wood Williams		Shapiro & Fisher	Est. Prop Inv	
Estimate	CHEMICALS (2)	Wardle (E.)	Turner (W. E.)	SHOES (1)
				SOUTH AFRICANS (1)
	DRAPERY & STORES (8)		Edwards	TEXTILES (2)
Railway	Food Stores		Highams	Tricollite

100 Relations
 101 Peter's address
 102 Piramag
 103 Pennell Millets
 104 Pennland Educational
 105 Vernon Fashion
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HOTELS (3)

Princess Wales Hotels

INDUSTRIALS (23)

Kennedy Smale
Nell & Smeaton
Norton & Wright

MINES (7)

F.S. Girdell
East Rand Comd.
Rhodesian Corp.

NEW LOWS (2)

Josey & Hawks	Orexy	Bord (J)	HOTELS (1)
Met Cinema	Plastic Construction		MINES (1)
Polins	Scottish Reticable	Zambia Copper	
Polan Profile	Sharna Ware		

1. *Journal of the American Medical Association*, 277:1225-1226, 1997.

FINANCIAL TIMES SURVEY

Thursday January 26 1978

Medical Equipment

Exciting claims are being made for the medical equipment, or health-care, industry since export possibilities began to be explored. Some forecast that by the eighties it may be one of Britain's biggest overseas earners.

ARKABLE transformations taken place in the equipment business in the last two or three years. It is said, by about separate items apart from drugs and food—whose were constantly compared about poor support the National Health Service. It has coalesced into a and headline-making industry. It even has a new "captains," it is the growing U.K. industry. Others assert confidently side 10 years it could gain's biggest industry gest source of overseas

Recognised

due to this transforma- to be found in a recogni- at exporting, not NHS was the key to success, d long been recognised pharmaceutical com- the majors among which multi-national groups. It o been recognised by a entrepreneurs in the medi- ment business, such as the medical tubing sub- of Smiths Industries. It rtainly recognised by nch embarked on invest- n overseas sales and in North America an enthusiasm never hed before. : all, it was recognised Department of Health. £100m-£150m. of the £250m.

Mrs. Barbara Castle, as Secretary for Health in the incoming Labour Government in 1974, soon became aware that any hopes of seeing the health service expand depended crucially on a marked improvement in the economy as a whole. It therefore behove her department to see whether it could pla any part in improving the nation's economic performance. With Dr. David Owen — a neurosurgeon and then her deputy — Mrs. Castle "pulled ng to Dr. Fred Wrigley, to the forefront of the Depart- its "captains," it is the ment's thinking" the subject of growing U.K. industry sponsorship of the health-care Others assert confidently side 10 years it could gain's biggest industry gest source of overseas

Export drive opens up promising vistas

By David Fishlock, Science Editor

Office recently, when the Health, made to Nigeria in transferred expeditiously to Wrigley became its new chair- man, armed with a departmental promise to underwrite any deficit in the subsequent three years of operations. One of the BHEC's problems is still the wide diversity in size of its members, from industrial giants such as EMI and Vickers to dozens of companies which have trouble in raising the £250 subscription. Dr. Wrigley's ambition to have an annual income of £90,000—£300 members paying £300 apiece—by the time the DHSS period of underwriting ends must still be

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counted comparatively modest. Yet BHEC claims it can—or soon will—offer services undreamt of by many small medical supplies companies only a year or two ago. For example, it is setting up servicing schemes overseas, whereby small companies will be able to use the facilities of international groups such as EMI (with its chain of bases across North America) and International Aeradio (Middle East and Africa). It is negotiating with Bowring an insurance package that will protect small companies against crippling damages if sued over the reliability of their products, a notorious risk nowadays in litigious societies such as the U.S. It is working hard on the problems of more harmonious relations between the industry and the DHSS, over such emotion-charged issues as central purchasing of equipment and the official evaluation of new machines and devices.

The health-care industry itself, although still fragmented, is becoming much less so. The success of the EMI-Scanner computerised X-ray system has been a tremendous boost to the morale of the industry, and has helped greatly to publicise the fact that the companies achieving the greatest success are those with at least one speciality to offer. Other outstanding examples are Porter, specialising in anaesthetic

TABLE 1
U.K. HEALTH-CARE
TRADE

	(£m. 1976)	Exports	Imports
Pharmaceuticals	*452	140	
Medical equipment	†156	98	
Consultancy	20	—	
Building/construction	70	—	
	698	238	

*Drug industry estimates that an additional £100m. may have been earned as "invisibles" by overseas subsidiaries.
†Under-estimate — EMI-Scanner earnings may have been up to £24m. higher.
Source: DHSS

TABLE 2
U.K. HEALTH-CARE
EXPORT

	(£m. 1976)	Equipment	Drugs
W. Europe	64.8	198.1	
N. America	*34.6	33.7	
Far East	15.2	56.2	
Africa	5.0	13.4	
+OPEC	19.8	70.0	
Latin America	4.2	—	
	—	—	—
*Under-estimate on EMI-Scanner earnings. †Including Nigeria			
Source: DHSS			

CONTINUED ON
NEXT PAGE

A word about health-care..... InterMed

Four years ago InterMed didn't exist. Today it is one of the world's fastest growing international groups of health-care companies. It operates in four principal sectors: hospital equipment, rehabilitation, distribution and clinical laboratories. Annual turnover has grown from £9 million in 1974 to a predicted £100 million in 1978. The group employs more than 4,000 people all over the world. It contains well known companies with envied reputations—and it is still growing. The most recent acquisitions include major distribution organisations in France and the United States.

A member of Thomas Tilling, InterMed sees significant growth in the world health-care field for an organisation with first class products, services and management.

It is no coincidence that InterMed's symbol is a diamond, synonymous with multi-faceted strength. Today it is increasingly recognised as the mark of a growing force in the health-care industry, world-wide.

International Medical Supplies and Services Limited, Lichfield Road, Stafford ST17 4NR, England. Tel: 0785 44136. Telex: 36677.
A member of the Thomas Tilling Group.

Inter
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Vickers Medical.

Market leaders in some of the world's most advanced medical equipment.

Recent innovations in the fields of Baby care, Intensive Care, Isolation Systems and Clinical Chemistry, have ensured that Vickers Medical is maintaining its position as a leader in world markets.

Experience, over many years, in developing and evaluating medical equipment, in close co-operation with internationally known Paediatricians and Neonatologists, now enables Vickers Medical to offer a complete range of equipment to assist the recovery process of the sick neonate. The range includes nursing and transport incubators, ventilators, humidifiers and resuscitation equipment.

In intensive care, Vickers Medical offers a sophisticated range of oxygen therapy equipment; from the controlled oxygen intake Ventimask to hyperbaric oxygen systems. This year Vickers Medical has introduced a range of digital infusion pumps and blood warmers engineered to high standards of quality and safety for use in intensive care, renal and paediatric units.

After producing the world's leading system of patient isolation for both containment of infectious disease and

immuno-suppressive therapy, Vickers Medical is proud to introduce a new range of transit isolators in both stretcher and aircraft versions, for the transfer of highly infectious patients.

Finally, the discerning approach to clinical chemistry features Vickers Medical's advanced range of highly automated discrete analysers and laboratory data-processing systems for continuous flow analysis. Each of these has proved its performance and capacity in leading hospitals and laboratories throughout the world.

For further information on the market leaders please contact:

In USA/Canada:
Vickers America Medical Corp.,
P.O. Box 101, Highway 22,
Whitehouse Station, New Jersey 08889.
(201) 534-4187. Telex 7104802822

Rest of world:
Vickers Limited Medical Engineering,
Priestley Road, Basingstoke,
Hampshire RG24 9NP.
0256 29141. Telex 858697

Vickers Medical



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Comprehensive Equippers of Overseas Hospitals

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Nigerian Army Medical Services
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Plateau State
(Mortuary Cold Rooms)
Benue State
(M.O.H. Hospital Equipment)
Anambra State
(The Teaching Hospital Enugu)
Imo State
(General Hospital Owerri)
South Eastern State
(Calabar Specialist Teaching Hospital)

Mobile Medical Units Supplied to Qatar,
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Advantages of The Ibis Medical System:

Ibis Medical can provide positive specialised assistance at the design and planning stage of projects to assist clients in finalising their plans. The full information available describing the equipment and the services required to operate it is of considerable value to the client's technical staff.

Standardisation of Equipment

The complete packing of equipment is based on the principle of standardisation. This extends to the adoption of colour schemes ensuring that all items in a department are colour matched.

Equipment schedules are prepared by fully experienced staff using computerised systems and backed by qualified medical consultants.



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P.O. Box 15, Kendal, Cumbria, England, LA9 6DU.
Telephone: 0539 24433
Telex: 65129

MEDICAL EQUIPMENT II

Explosive growth in electronics

FASTER-GROWING than even the health-care industry itself is medical electronics, the application of electronics to diagnosis, patient monitoring, prostheses, medical research and so forth. Dr. John Powell of EMI, a company with diverse interests in electronics—spanning defence, security, automation and medicine—forecasts an explosive 12 to 15 per cent annual growth for medical electronics up to 1993. He speaks with the authority of a managing director whose activities in medical equipment earned EMI over £100m. last year.

In the public mind there is no doubt that the most dramatic impact of electronics on health-care is to be found in disease diagnosis. As defined recently by two American professors, in an examination of the impact of micro-miniaturised electronics in medicine, the ideal diagnostic instrument "provides definitive data on the patient's condition, causes him no harm or discomfort, and is convenient, reliable and economical for the physician or his medical associates to operate."

The mini-computer has already transformed one long-established technique, X-rays, into a more revealing method of diagnosis. Similarly, the gamma camera has become a more powerful tool with the addition of a computer, as Elscint, an Israeli company, has shown in equipping it with virtually real-time imaging. The computer is in process of transforming another technique, the ultrasonics, whose results hitherto were far too ambiguous. It may yet unlock others, such as neutron magnetic resonance (NMR) the spectroscopy, still in the research phase.

Imaging

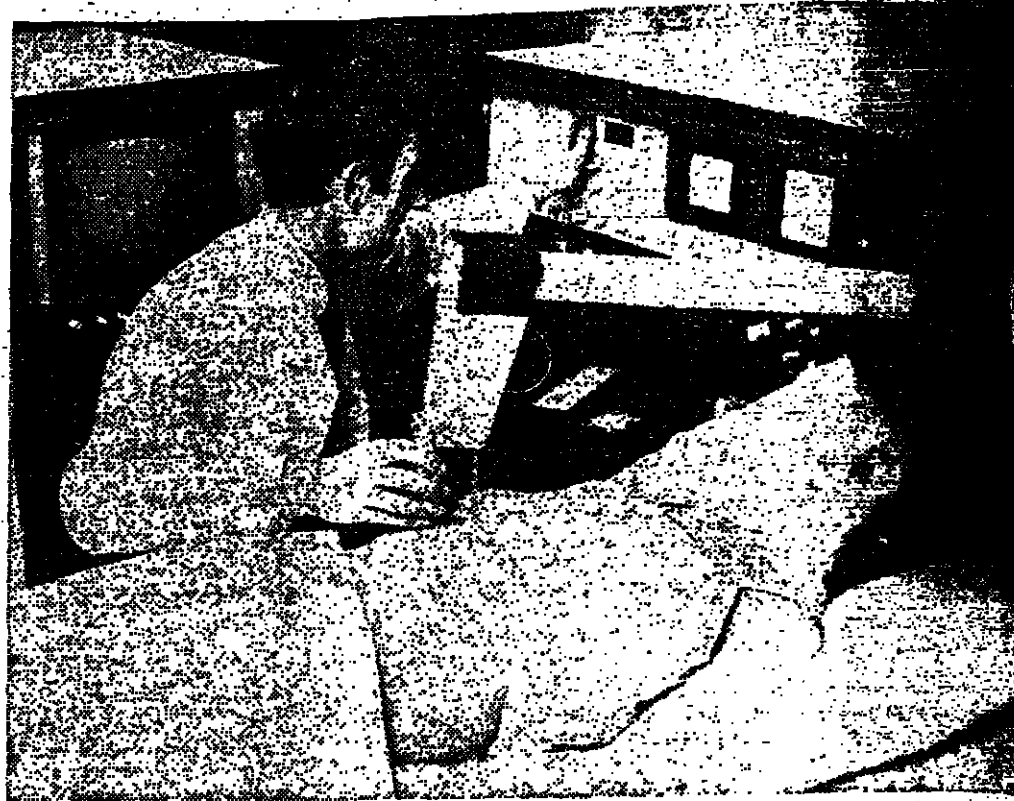
Computerised axial tomography (CAT) scanning with X-rays was made possible by the extraordinary data processing power of modern electronics. CAT-scanners have brought home to the doctors of electronics to automate the that "imaging" can be vastly superior in performance to their traditional methods of investigating disease. Patients find that it can be quicker and much less uncomfortable, and sometimes less risky, than "invasive" methods of investigation. Yet the question remains: are these new instruments, costing up to \$800,000, really worth all that money?

A warning that the new techniques must be used intelligently to obtain relevant information about the patient, and not merely to satisfy the curiosity of the doctor, was given last autumn by two U.K. researchers with long experience of their potential. They stressed that for the great majority of patients most information about their illness is still obtainable by taking a case history. "The doctor who does not speak to his patients or relatives but relies on tests will often miss a diagnosis," wrote Dr. Louis Kree and Mr. Hylton Meire, of the Clinical Research Centre, in the British Medical Journal. Usually the scanning techniques cannot answer such questions as "Why is he pale and wan?" or "What is the size, shape, and position of a mass in the pancreas and is it solid or cystic?"

In less than five years X-ray scanning has revolutionised neuro-radiology—examination of the brain and spinal cord—and the latest developments from GEC's Hirst Research Centre and the work of Dr. Peter Fish at King's College Hospital, in investigating and—still more significantly—monitoring the progress of circulatory disease by doppler ultrasonics, are already pointing the way. The researchers' aim is to develop a 3-D reconstruction of the ultrasound image for the doctor to view. Sonicaid's Multiphasic scanner takes the technology part-way towards this goal.

The U.S., which has provided by far the biggest market for CAT-scanners so far, is now the market most insistently questioning the cost-effectiveness of complex electronic systems. Would-be purchasers must show a "certificate of need" before they can use public funds to purchase a CAT-scanning equipment. One result has been a sharp fall in sales of the EMI-Scanner last year, after four years of meteoric growth. The manufacturer, however, remains confident that it is only a hiccup of the kind that every other major technological advance has experienced when, after the initial surge of enthusiasm, the customer begins to ask: "What is it saving me?"

Nevertheless, one market for diagnosis which looked highly promising in the 1960s already appears to have failed the test of cost-effectiveness. This is year under the NHS, chosen



Sonicaid's Multiphasic ultrasonic scanner, which can provide the doctor with a 3-D image, has proved promising in the early detection of cancer of the pancreas as well as in obstetrics.

also has no rival in the diagnosis of lung disease and examination of the skeleton. Ultrasonic investigations are clearly preferable for obstetrical use because they hold no known hazard for either mother or unborn baby. In other parts of the body, such as the abdomen, Kree and Meire conclude that the relative advantages of the two techniques depend more on the specific circumstances of the patient and his illness.

This brings us back to the highly contentious question of costs. To-day the cost of equipment for CAT-scanning is about ten times higher than that for ultrasonic scanning. The same disparity is present in the costs of repair and maintenance. But the gap is going to narrow, as ultrasonics make greater use of electronics to automate the process and accelerate signal processing.

The latest developments from GEC's Hirst Research Centre and the work of Dr. Peter Fish at King's College Hospital, in investigating and—still more significantly—monitoring the progress of circulatory disease by doppler ultrasonics, are already pointing the way. The researchers' aim is to develop a 3-D reconstruction of the ultrasound image for the doctor to view. Sonicaid's Multiphasic scanner takes the technology part-way towards this goal.

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Simple

Much of the electronics used in medical instrumentation is of a comparatively simple kind, and for this reason tends to be eschewed by the big research-based groups like GEC and EMI, which see their future primarily in engineering complex systems. The smaller medical equipment companies provide a wide variety of "black boxes" which the doctor can assemble to provide patient care as he sees fit.

One ubiquitous instrument which is evolving into a system is the coronary heart rate monitor for patients recovering from a heart malfunction. The aim is to avoid the need to have someone constantly watching an ECG display for signs of trouble. This can now be done more reliably than by a nurse herself, by programing a mini-computer to analyse each heartbeat and, frequency, and to bring to the attention of medical staff any significant aberration.

The cardiac pacemaker, which injects synthetic electronic signals into the nervous system to replace or reinforce natural signals, is an excellent example of the confidence doctors have today in micro-miniaturised electronics. About 6,000 heart pacemakers are implanted each year under the NHS, chosen

from about a score of models available in Britain. Nevertheless, the technology is still novel enough to require unremitting vigilance to safeguard patients whose lives may be depending upon an implanted piece of electronics. Last year one of the pacemaker manufacturers, called Devices, favoured by the NHS, ran into trouble with what turns out to be a manufacturing flaw in a tantalum capacitor in its integrated circuit. As a result, it has withdrawn from the pacemaker market. One consequence has been a hold-up in the assembly of long-lived (20-year) nuclear powered pacemakers for the NHS by British Nuclear Fuels which was using the Devices circuit.

Other types of prostheses, implanted or not, designed to replace or augment some natural function, have also discovered the tremendous power of the integrated circuit. The Optacon, for example, a U.S. invention, is a micro-miniaturised electronic camera that translates an optical image of, say, a page of type, into a tactile image that can be "read" by the finger tips of a blind person. Thousands of these instruments are now being used worldwide. An implantable hearing aid for the profoundly deaf is under development in the U.S., designed to replace natural signals that stimulate the auditory nerve.

In Britain, one of the most successful applications of electronic prostheses has been to the severely disabled—such as those paralysed in all four limbs. Possum Controls, developed originally from work for the Spinal Injuries Unit at Stoke Mandeville Hospital, claims that about 2,000 severely disabled people are using its electronic systems, mostly supplied in the past five years. The Possum systems enable them to read, write, and operate domestic equipment such as TV sets and telephones. One of its latest innovations is a remote-control system of operating all these through an ultrasonic transceiver system developed with the help of the Charity Action Research for the Crippled Child.

David Fishlock

Vistas

CONTINUED FROM PREVIOUS PAGE

accessories: Spemley Products, it expects from the Government by Frost and Sullivan, is expected to double its spending in compensation for nationalising its aircraft and shipbuilding activities. Under a new management between 1975 and 1980, ageing director, who has striven to tailor sophisticated products forecast to reach £100m. a year, to markets rather than vice versa, the venture is beginning proposals for 80 new hospitals to look set for success. Not among OFEC members, "with least, the National Enterprise Board has taken a keen interest for 1988. The Cornet countries in promoting ventures with the financial and managerial strength to undertake major health-care contracts overseas, shown with a £125m. contract for constructing for automated machinery to make disposable plastics.

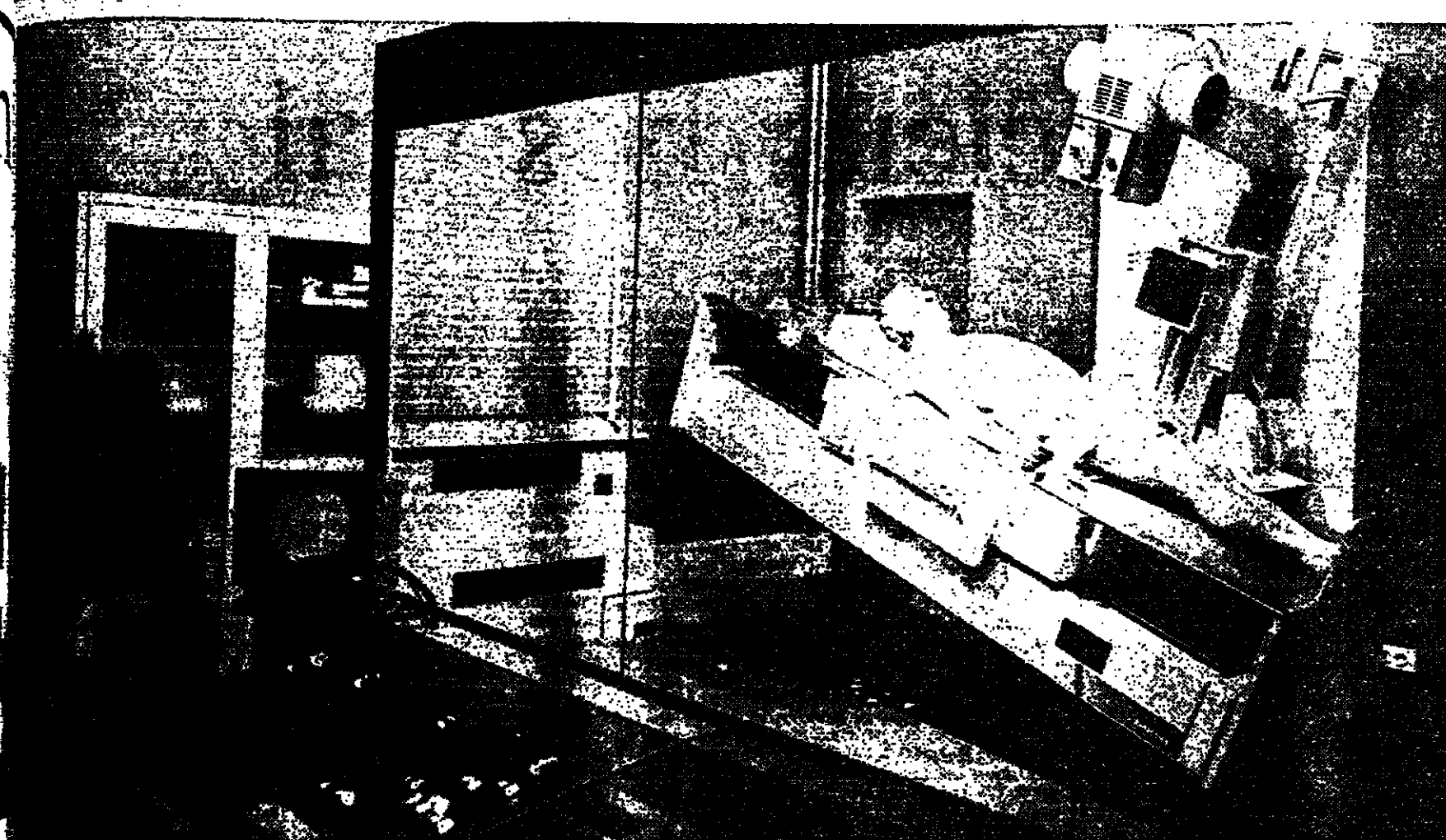
Contracts for constructing for automated machinery to make disposable plastics. Incentive But an incentive that should not be overlooked is "import substitution"—the goal of replacing the large NHS imports (see Table 1) of medical equipment with home-made products. The packages offered can evolve, for example, in spite of the reputation of its own X-ray equipment, the U.K. still imports heavily from Picker in the U.S. and Siemens in Germany. The DHSS is trying to isolate other imbalances so that it can prime the BHEC with the statistics—although it still badly lacks the sophistication in industry statistics enjoyed by, say, the Industry or Energy Departments.

What are the incentives that drive industry to coalesce and to sell fight against strong international competition from the U.S., West Germany and elsewhere? Europe alone, according to a recent market survey

This spring one of the most contentious issues between Government and the health-care industry may be resolved, when Mr. Brian Sahun reports to the Secretary of Health on the case for a Supply Board that would work out a common NHS purchasing policy to be followed by all the regional hospital authorities. The aim of the DHSS is to secure best value for money from the £600m. now being spent in this sector.

In large measure the health-care industry now supports the case for a Supply Board, provided that its disparate parts—drugs, medical, surgical, diagnostic—are fully represented. It would look to the Supply Board to prime more statistical help from DHSS, and also to influence strongly research, development and design in the industry. Above all, perhaps, it would expect the Supply Board to be sympathetic to its case that by squeezing prices at home its monopolist domestic customer may not necessarily be acting in the national interest. Many overseas governments monitor very closely the prices being paid by the NHS, which sets severe limits to the freedom of U.K. companies in pricing their exports.

MEDICAL EQUIPMENT III



The Siemens Siremat universal X-ray diagnostic unit, a fully automatic installation with integrated processing machine which delivers the completely processed X-ray picture and patient data in two minutes.

Drug companies ponder diversification

PHARMACEUTICAL research is a risky business. Companies estimate that only one compound in 8,000-10,000 isolated has a chance of success and it can now take as long as 10 years for a candidate drug to proceed from discovery to its initial market launch.

The attraction of diluting the risk by diversifying activities into other areas must have occurred to most pharmaceutical companies, and many have considered in detail plans to enter other sectors of the health care industry. But the results of such studies have hardly been consistent. In the U.K. pharmaceutical companies have traditionally taken very little part in allied areas of the medical equipment industry. Companies with a presence in this market, such as Glaxo, have often been there for many years and first entered the field more by historical accident than by conscious corporate decision. Other pharmaceutical companies, like Beecham, have plainly decided that for the moment all their resources will be concentrated on doing what they know best, namely the research and development of prescription drugs. A diversion into other medical supplies would only weaken a research activity, which by its very nature must be dedicated and single-minded if it is to succeed.

Even a company of the complexity and diversity of Imperial Chemical Industries has made little concerted effort to enter areas of the health care industry other than pharmaceuticals. It once studied the feasibility of bringing its plastics and medical dressings. Engineering pharmaceutical resources to such an end, but little came of it. It does have a medical electronics and

Spending

The market for medical equipment is still relatively small compared with pharmaceuticals. Last year exports of drugs, for example, from the U.K. totalled an estimated \$548m. compared with overseas sales of medical equipment amounting to some £245m. In the U.K. spending on medical equipment in the year to the end of March, 1977, by the National Health Service was some £145m. At the same time spending on drugs and dressings for hospital use came to £104m. But by comparison the bill for prescription drugs from general practitioners totalled £534m. in 1976—the latest figures available.

Companies in the field of medical equipment in the U.K. have usually entered the sector as a result of their mainstream activities. A company historically in textiles, such as Smith Nephew, has concentrated its attentions on the area of orthopaedic and medical dressings. Engineering pharmaceutical resources to such an end, but little came of it. It does have a medical electronics and

machinery, while it was chemically based companies, who entered the field of pharmaceuticals.

This traditional analysis of the industry is changing, but it is taking longer to do so in the U.K. than in most countries. However, Dr. Fred Wrigley, chairman of the British Health-Care Export Council, and formerly deputy chairman of Wellcome, believes there are definite sectors of medical equipment where U.K. pharmaceutical companies could profitably be devoting their attention.

Automated chemistry for diagnostics should be a natural field for pharmaceutical companies, he says. "Many have looked but none appears to have taken the plunge." He suggests that it is uncertainty about the U.K. market at a time of limited NHS spending on new hospitals that is holding drug companies back. It is now possible, however, that some Government backing may be available for new development projects in this area. The Department of Health has started to realise that overseas countries wishing to buy integrated packages of medical equipment can be more easily persuaded if the equipment is already on display and in use in British hospitals.

Britain has no major presence as yet in automated chemistry, that is in the manufacture of machines that can automatically carry out a wide range of diagnostic tests on body fluids such as blood. Pharmaceutical companies are ideally placed to offer the basic chemistry for such machinery, says Dr. Wrigley, but as yet there have been no significant takers.

On the other hand as U.K. drug companies look at the experience of some of their rivals around the world, who have made big strides into medical equipment, they may well be thankful for their caution.

One such U.S. company is G. D. Searle. More than 10 years ago it made the critical decision that as a research intensive pharmaceutical business, it had to diversify into other areas of health care. Today it is in the process of disposing of as many as 20 businesses with sales of some \$180m. a year and the area is expected to fall mainly on the hospital and diagnostic products sectors.

The reasons for the company's diversification were explained by Mr. Daniel Searle, chairman, at the last annual meeting. "Pharmaceuticals offered a high reward based on the usual financial yardsticks, but the risks were also high. Our product line was too narrow and too dependent on the next breakthrough from research and development, and we were wide open to the risks of technological and regulatory obsolescence."

"We knew, however, that if we diversified into other areas of health care, we would have to settle for a more conservative return on investment because other health care areas simply didn't carry the high risk/reward profile of pharmaceuticals alone. But diversification would reduce the overall risk factors. We felt it was in the company's best interest... to give Searle more stability through a broader line of health care products."

But the process of transforma-

tion was not a happy one. At the annual meeting Mr. Searle admitted: "We did not achieve a perfect balance in this diversification effort. Consequently there is some more pruning and fine tuning still to be done." Spelled out, that message means that this year the company is having to divest several businesses as part of a series of cash strengthening moves which could help 1977 earnings by as much as \$95m. The businesses to be shed are expected to come chiefly from the hospital and diagnostic products sectors. Searle has gone through precisely the problems of diversification envisaged by some more cautious companies. Ironically, Mr. Donald Rumsfeld, the president, said recently that Searle would now concentrate management efforts and financial resources on its primary and larger business areas. Pharmaceuticals would not be affected by the divestiture plan.

Expanded

Another U.S. drug company which has rapidly expanded its hospital products operations is Pfizer. In 1976 it achieved sharp sales increases in areas such as orthopaedic, dental and medical specialty products and sales of diagnostic instruments rose sharply. Towards the end of 1975 it also entered the high-technology area of electronic body scanning, an area that has appealed to other pharmaceutical companies, but which in the U.K. has been dominated by EMI. Last year Pfizer was confidently predicting that new product development and further acquisitions throughout the hospital products operations promised rapid growth.

But here again problems have emerged. Certainly in the U.S. the market for medical electronics equipment has declined dramatically. U.S. orders for scanners in 1976 were around \$60, but last year they appeared likely to be nearer \$50 and this year the market could well be reduced to \$20.

And yet the attraction of other areas of the health care industry for pharmaceuticals companies is undeniable. One of the latest converts to this way of thinking is a leading Swiss company, Ciba-Geigy. It is in the process of acquiring an 80 per cent stake in the U.S. Alfa Corporation at a cost of some \$20m. Alfa is a Californian undertaking which specialises in the technology of delivering drugs to the body.

Ciba-Geigy has no other interests in this field, but it apparently believes that new drug delivery systems, which apply a drug far more accurately and locally than traditional systems such as swallowing or injection, could help overcome mounting difficulties with the regulatory authorities over the introduction of new drugs. If, instead of flooding the body, a drug is applied locally, it could prove far more acceptable to regulatory agencies.

The dangers for pharmaceutical companies entering other areas of health care clearly should not be underestimated. Despite superficial similarities the skills, demands and organisation of the drug industry are

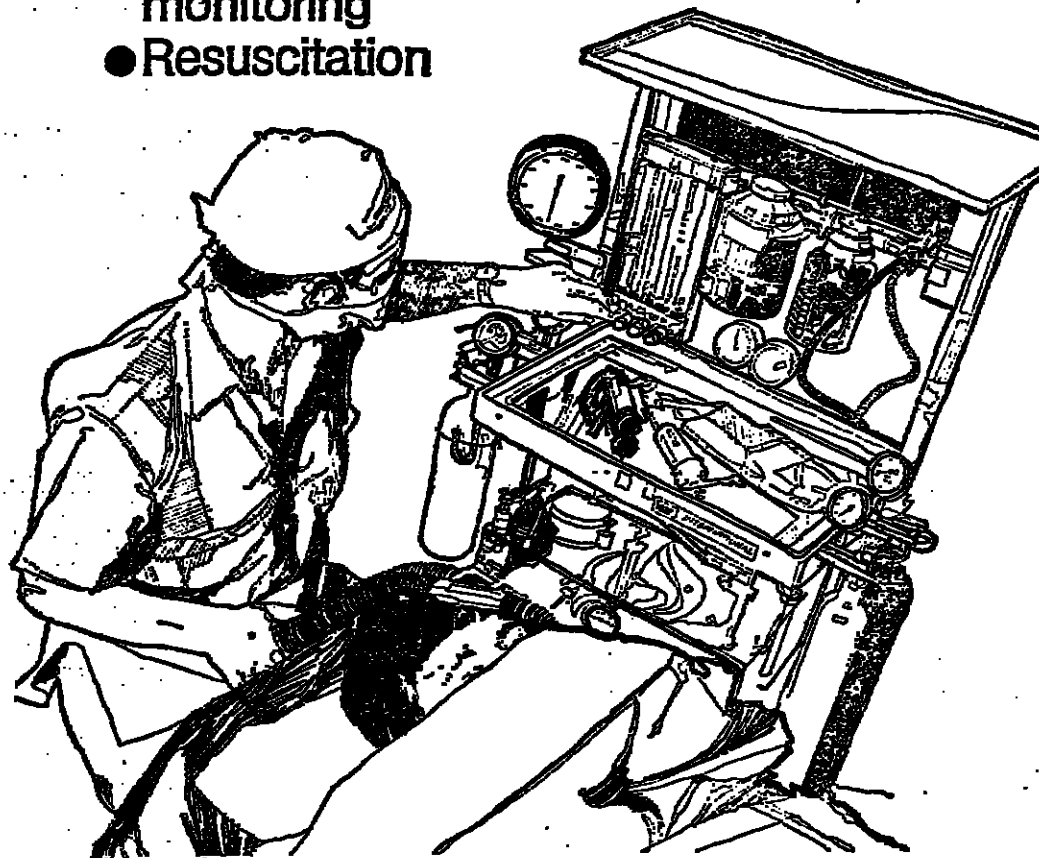
often very different to those required by the medical equipment sector. But it is also clear that such obstacles are unlikely to halt a growing integration of interests. There is an old adage in the drug industry that the riskiest places to invest your money are slow horses, fast women and pharmaceutical research. As long as that holds good, there will be companies seeking to diversify.

Kevin Done

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MEDICAL EQUIPMENT IV

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The nucleus hospital

THE DESIGN, planning and equipping of a hospital is one of the most complicated operations in the making of a public building.

Over recent years the Department of Health and Social Security (DHSS) has built up a formidable research and advisory staff in which architects play a role of paramount importance. It is these members of the staff of the DHSS to whom I owe the information contained in this article, although any opinions expressed therein are my own.

The Department, through the Regional Hospital Boards, issues, *inter alia*, precise manuals of advice on all aspects of design which are passed on in the dialogue which must ensue once the selected architects, or in some cases the Department's own architects, have been commissioned. In these days of swift advances not only in building, but also in medical technology, the architectural skills are tightly and inevitably stretched within their own compass.

Each year some 13m. people go for treatment in our hospitals and another 750,000 capital will in future be allocated to the development of the whole hospitals; emphasis will be on the integration of health care with the social service resources and the maximum use of existing stock. There will, however, be places where new building must be the only answer, possible in order to play a part but even then such buildings in encouraging a feeling of confidence during their stay.

Another need concerns the outside world by ensuring that the impact of the building on its environment should not necessarily dominate it but that it should be enhanced by the sensitive selection of materials and the careful treatment of the hospital site by tree and flower planting and laying of lawns and carefully designed paved areas.

But it is the complicated internal arrangement of the hospital itself which planning skills must provide, and this all has to be set against the curtailment of public expenditure. Against such a background

Project

The DHSS, in order to anticipate the restrictions of the next few years has as a research body planned and designed a "small intensive use" project, self-contained in the first phases as 900 beds, with the utmost economy in capital and running costs, limiting provision in the first instance to what is needed to sustain the essential services.

One of the principles governing this nucleus is the achievement of multi-use, comprising the clustering of departments, avoidance of the use of fixed specific equipment where possible and of provision for exceptional demand. In addition, the theoretical designs cater for a maximum of three making most use of natural light and ventilation and providing for all fire escape requirements.

The work cost for first phase nuclei is limited to £5m. and this must assume that a large number of adequate services would be provided separately from the nucleus contract, such as laundry, pharmacy manufacture, sterilisation, production, laboratory, stores, garage and maintenance, administration, works organisation and staff training.

The building shape is determined on seven basic principles, the most important of which is to keep in mind the need for growth both phased and unfore-

seen; this means that the plan form must be open-ended. The nucleus hospital is thus based upon a central spine or street which can be extended in either direction. Attached to either side of the street are interconnected cruciform departmental blocks with the hollow spaces between the arms forming courtyards. The remaining principles move through departmental relationships, safety measures, economic considerations and on to engineering service provisions towards the end product; "a building form flexible enough to blend into, not dominate, its environment; domestic in scale and with an overall geometry to give visual consistency to a wide range of functions."

Great importance is attached to the treatment of interiors. Interior design, it is agreed, can have a major influence on patients, staff and visitors. To ensure that everything can be done to humanise the public and ward areas a team of interior designers work with the whole design group.

Starting with the main entrance, which should have much of the character of an hotel foyer as it will be seen by everyone at one time or another, the greatest care is taken in selecting the colour of materials used in furniture and carpeting for here many people will be congregating for varying periods. The information desk is in the entrance hall, with shops, bank, post office, coffee and snack bar adjoining.

Comfort and colour combine to give confidence and clear directional signs aid easy circulation for visitors to the wards. The same colour and comfort in principle also applies to the "soft" areas of the hospital where visitors wait to see patients, to children's rooms, dining rooms and to some of the ward and treatment rooms. Children's wards will be treated with particular care and a cheerful atmosphere, created with bright colours and with both pattern and colour in cubicle curtains.

The "hard" areas comprise all those parts of the hospital which serve a clinical or industrial purpose and include treatment and utility rooms and theatre suites. Here the decorative treatment will maintain a careful balance between a cheerful and pleasant atmosphere for the patient and the clinical needs of treatment.

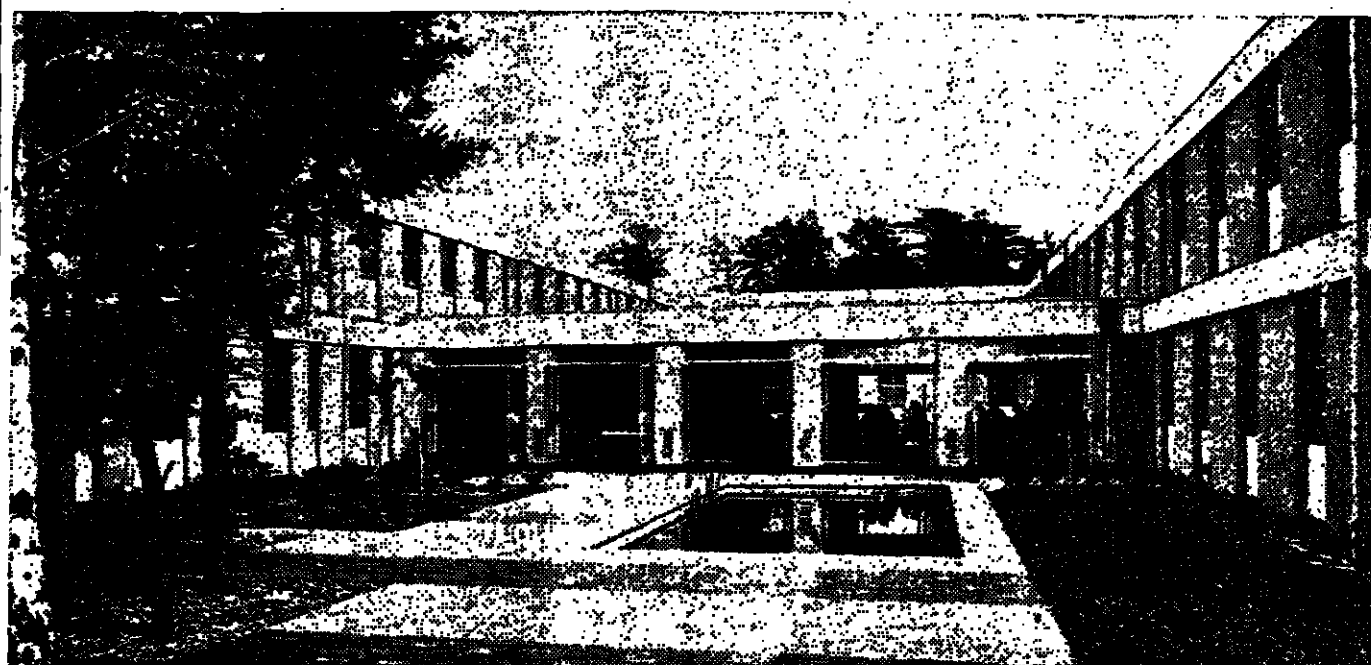
The unifying element between all departments is termed the "harness zone" or "harness street," as wide as a village road, serving to connect both horizontally and vertically all the most widely used parts of the hospital. It includes all stairs, lifts and ramps, providing a circulation route for pedestrians and wheeled traffic.

Modified

The spatial requirements for the movement and turning of the beds and trains of supply trolleys need special attention, but the large scale of these areas can be much modified by colour, pattern and texture, and most important by lighting, the whole effect of which must be worked out in parallel with the detailed planning. The staff dining room will be placed so as to make the best use of views to the outside (where such are desirable) or into well-planned internal courtyards. It will thus be realised how important is the role of the interior designer who, if brought in too late, will miss much of the opportunity to exploit his skill.

It can be appreciated that the humanisation of the environment, both inside and outside, can help in a major way to create confidence in both patients and visitors and indeed in those who live close to a new hospital building. Throughout this country numbers of new hospitals have been erected which combine these humane and aesthetic virtues alongside the sensitive attention of both medical and nursing staff.

H. A. N. Brockman



Courtyard with trees and pond at West Suffolk Hospital, Bury St. Edmunds.

Britain provides the new technology

THE DEVELOPMENT of field—is to become established medical supplies and equipment and accepted procedure as quickly as possible, commercial targets are essential. In this respect the British Healthcare Export Council is an important guide and mentor. The BHEC is not involved in fostering new technology in the direct sense. But as a platform for display and introduction it provides an invaluable service.

Last year the BHEC staged 14 exhibitions of British medical expertise in a series of trade displays that ranged from Tokyo to California. The BHEC's exhibition in Dubai attracted the largest number of individual company displays; all revenues have turned the Middle East into a major battleground for Britain's medical salesmen.

At the top of this somewhat untidy structure sits the Department of Health and Social Security whose scientific and technical department acts as something of an unofficial liaison group. On a budget of around £2m. a year, the DHSS is able to promote new medical developments—mostly by acting as a customer and putting up the money (in other words buying) pilot schemes. This is one instance where State money is spent with great care; the DHSS stresses that financial arrangements are never entered into until the commercial future of any research project is clearly defined.

Since the ultimate goal of new technology—no matter what the

At InterMed the development emphasis lies towards exploiting existing technology—adapting to-day's methods more effectively to the demands of the modern medical world. The company's spending on research and development amounts to something like 5 per cent. of sales in laboratory and rehabilitation fields with a slightly lesser amount (some 3 per cent. of sales) going towards the development of new hospital equipment. Here research is being undertaken into electronic controls and safety devices. A portable system for artificial breathing which can be used in ambulances as well as hospital intensive care units recently earned for InterMed a Design Council award.

The main medical concern of the central research laboratory of EMI lies with extending and developing the uses of the company's successful body scanner. Forms of cardiac scanning are under development for example. One of the many problems yet to be entirely solved in this field is a means of speeding scan times to a point where they are quick enough to monitor heart pulses. Technology complementary to the scanner comes in the form of ultrasonic systems. By sending sound waves through the body—to be picked up as echoes—ultrasonic systems eliminate the X-ray element involved with scanner equipment.

Something like £12m. a year is spent by EMI on medical research of one kind or another. Medishield, which is part of the British Oxygen organisation, has stepped up its development spending in recent years from around 3 per cent. of sales to about 5 per cent.

The bulk of Medishield's production is concerned with medical gases and in this respect its newer developments lean towards anaesthetics. The company has recently introduced a new multi-gas monitor which adds a new dimension of sophistication and mobility to the task of in-vivo monitoring respiration. And like EMI the company also has ultrasonic projects on the stocks. It hopes to launch commercially a system for use with the lower limbs—work on which has been made possible through the use of the DHSS which put up the money for a pilot machine.

Because of the parent company's long-standing involvement in the production of gases for use in hospitals and the manufacture of equipment to enable those gases to be administered to the patient, anaesthesia and lung function equipment together with hospital pipeline systems still account for the major part of Medishield's business. But its expansion into electronic technology has been rapid. It is also developing and extending interests in orthopaedics and therapy.

Launches

The backroom boys at Pye of Cambridge have been equally busy. The launches last year of a number of new medical products included a fully portable battery operated syringe driver that can be used for continuous infusion of drugs while the patient lives a normal life.

Pye Dynamics—the Pye subsidiary involved in these medical developments—has also recently produced an induction and monitoring system that for the first time combines in one portable unit a foetal monitor and induction pump, thus helping to eliminate some of the bulky equipment hitherto necessary around delivery wards whenever induction was used.

New forms of cryosurgical equipment are about to be unveiled by Spemby, a company that is part of the British and Commonwealth Shipping group. In recent years the use of cryosurgery in gynaecology has become firmly established: the company is about to extend the operational fields of this type of product through launch this year of a unique form of pain killer, using electronics and cryogenics.

After three years of clinical research, Spemby has produced an antidote to intractable pain which does not have the sort of unwanted side-effects seen in some drugs and types of therapy. The new technology consists of a long needle probe which allows a high degree of accuracy in isolating nerve fibres which in turn freezes by encapsulating in a ball of ice.

The new system has generated excitement in the medical profession because it is non-destructive. The freezing of a nerve end allows it to come back to life after a relatively short interval.

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Standardisation proves an elusive goal

IN BRITAIN the constraints to free trade in medical equipment imposed by a lack of uniform standards may be more imagined than real. This is despite a proliferation of different models in some technical areas, all designed to carry out substantially the same job and all claiming to suggest the optimum solution to hospital and patient requirements.

In international trade, however, the lack of universal standards and varying national legal requirements often presents a real impediment to world trade. National requirements may be met by near duplication of other countries' equipment, while some countries simply refuse to accept supplies of foreign medical equipment.

Often the only exceptions are in areas where one country has an undisputed technical lead over other nations. A case in point is the EMI brain scanner, exported to many countries where its usefulness could not be matched by other equipment.

The absence of absolute, clear-cut standards covering every aspect of a design even in national markets, has given designers scope to meet a specification with a degree of flexibility. Thus in Britain there are 20 different makes of electro-cardiograms, supplied by 15 U.K. manufacturers. All meet standards laid down by the health authorities and many will provide the medical staff with advantages or different characteristics to suit "personal" needs.

In international markets, however, these variations may make it even more difficult to get equipment accepted.

Manufacturers of medical equipment, rather like manufacturers of mining equipment, often have as their major customers, public corporations, which are often tempted to write their own specifications and standards, as a result of their powerful, monopolistic position.

This may well have the effect of distorting the market place at home, let alone abroad, as was pointed out by Sir Frederick Warner in his recent report on standards and specifications in the engineering industries, published by the National Economic Development Office last year.

But even specifications written out by major public corporations may not be open to simple classification, so variable are the terms used to define "standards."

A majority of standards in the medical equipment field are voluntary, a description which reveals much about the attitudes of national governments, including that in Britain.

Consent

Other standards can be mandatory, or contractual. But voluntary standards incorporate technical descriptions of one or more aspects of a product offered to producers and consumers for the protection of both parties. Adoption of such standards is usually by common consent or by implication in a purchasing contract for the equipment in question.

Mandatory standards, incorporated in legislation, are not often favoured in British medical practice. There is the difficulty of changing laws and regulations, as technical developments progress and outdated a "fixed" standard. Mandatory standards thus may act as a brake on progress and increasing reliance is placed on the principle of "reference to standards," in which legislation is written in general terms which remain fixed while the detailed methods of meeting these requirements may be embodied in standards which progress according to normal practice.

As well as different types of standards, there are different interpretations placed on the word itself. Thus it can vary

from a simple general statement about some feature of equipment such as maximum temperature or maximum radiation emission, to detailed product specification. Most standards would fall between the two types, but in nearly all cases specialist knowledge is required to interpret a standard.

Similarly the sources of standards are various, from the International Standards Organisation and the International Electrotechnical Commission covering electrical equipment, through to national standardisation bodies such as the British Standards Institution and professional and independent organisations.

It is this proliferation of standards and varying national approaches which hinders international trade in medical equipment. Quite simply, the manufacturer who cannot afford to make different versions of his product or does not wish to submit his ideas to type-approval and certification procedures may find himself effectively barred from certain markets.

Yet the manufacturer who can afford to take these expensive steps towards international marketing, must reflect in the price of his products at home and abroad the cost of researching and meeting demands of the markets he wishes to enter.

These real problems provide food for thought in the Brussels headquarters of the European Economic Commission. The EEC now has a major programme underway aimed at eliminating technical barriers to trade. This is conducted under Article 100 of the Treaty of Rome.

On a larger scale, the General Agreement of Tariffs and Trade is working towards mutual recognition of standards and certification schemes.

Positive steps here may yield results. The hope is that governments may be able to replace local standards by international standards.

In the International Electrotechnical Committee for example, there are now 22 groups working on medical electrical equipment under the auspices of Technical Committee No. 62.

For non-electrical equipment the International Standards Organisation is working towards standards in Technical Committees Nos. 75, 76, 84, 121, 150 and 157.

Within IEC-TC 62 at least 10 standards are at the stage where the final voting for their acceptability is now taking place. Publication of these standards could be expected within two years. Some authorities in Britain's Department of Health and Social Security suggest that the important standards for medical electrical equipment will have been published by 1985.

Europe appears to be well ahead of the rest of the world, even accepting the work of the international committees, in moving towards a general commitment to standards. The EEC has two directives concerned with trade in medical electrical equipment. These are at an advanced stage, and are awaiting only the publication of appropriate IEC standards for their formal adoption.

Acceptable

The first directs that member States may not prevent the sale, free movement, and use of a list of equipment if it complies with the forthcoming IEC standard "general requirements for safety of electrical equipment used in medical practice." A manufacturer's declaration is acceptable as evidence of compliance with this standard. The directive covers equipment which does not pose a specific safety problem.

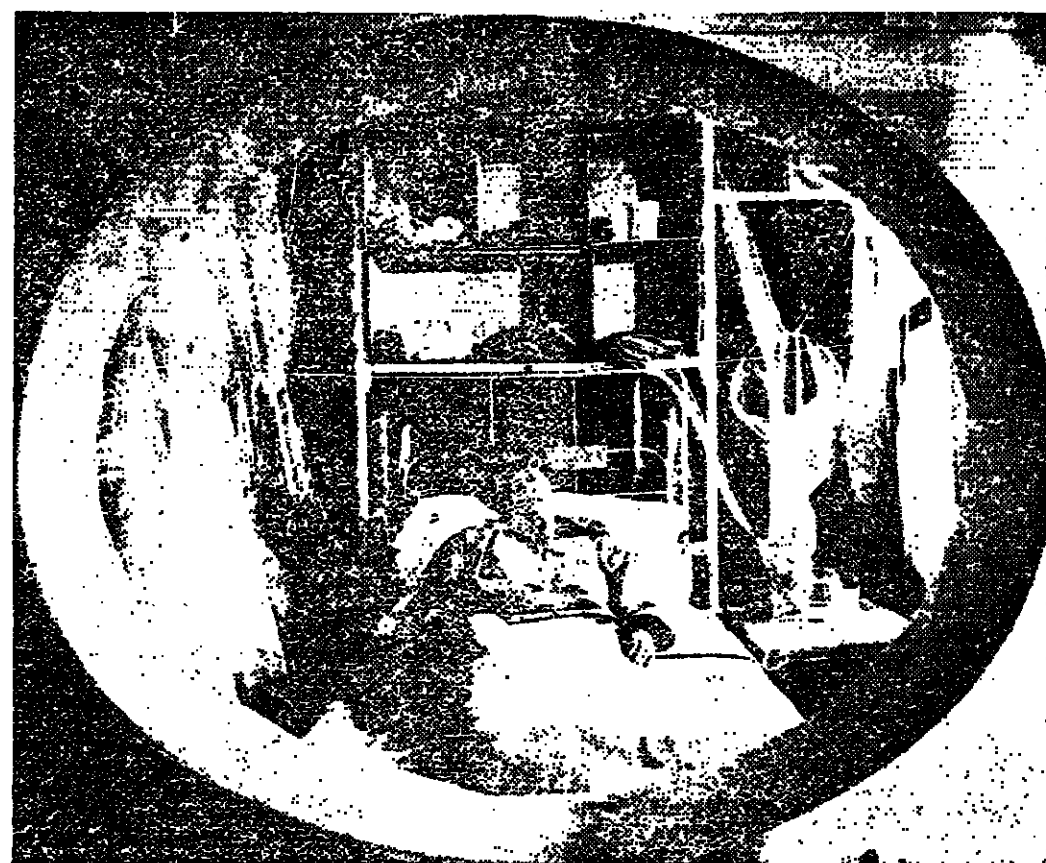
The second directive in draft form imposes the same requirements on member states for X-ray equipment emitting radiation

in the energy range 10 kV to 400 kV if they comply with IEC publication No. 407 and the IEC general safety document. Again, a manufacturer's declaration is evidence that a maker has complied.

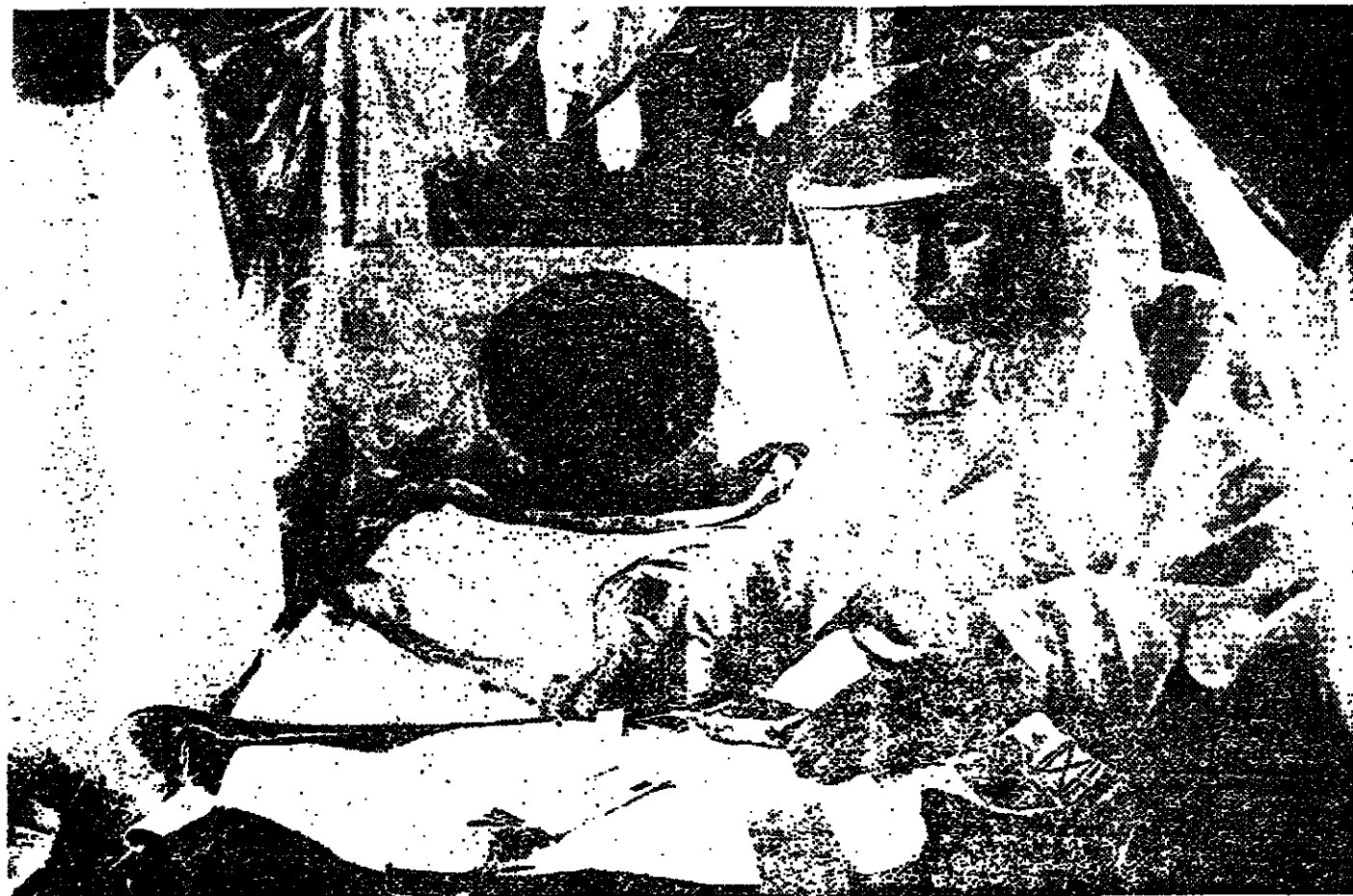
These basic provisions should remain unchanged, even though the publication No. 407 is being revised.

Developments in the U.S. may pose a threat to world wide acceptance of standards, where different standards are now in force. In Britain, health authorities regard this as a real threat to the further development of world trade in medical equipment.

Lynton McLain



Above: Vickers (Medical) containment bed for patients suffering from contagious diseases. Medical and nursing procedures are carried on from outside. Below: The company's Aircraft Transit Isolator for patients with highly infectious diseases who require long-distance transport by air.



One of the reasons a £250m Middle East contract came to Britain

The award of the biggest-ever contract of its kind to Allied Medical and its associated company Umedco made headlines in the business Press.

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EXPORT POTENTIAL in the field of medical equipment and supplies has been highlighted in recent months by the National Enterprise Board's singling out of this activity as suitable for encouragement with its investment backing.

Indeed, the State-owned NEB has lately placed itself at the head of a City consortium which has made an £8.1m. take-over offer for Allied Investments, the nursing homes and hospital supplies group which already has some big Middle East contracts.

The NEB will have a 70 per cent. majority stake in the bidding company, the newly-created United Medical Enterprises, and so will in future—assuming the deal goes through—be in control of the Allied Investments business, including its major new £250m. contract to equip and supply two new hospitals in Riyadh for the Saudi Arabian Defence Ministry. Allied will be the vehicle for the NEB-sponsored export drive in this whole field.

In some quarters surprise has been expressed at this move by the NEB, in view of Allied Investments' known shortage of capital, its recent difficulty in obtaining payments on a Middle East contract and the fact that its latest accounts were qualified by the auditors. Not for the first time, the question is heard as to

why the NEB has backed one company in an industry rather than others.

If the State wants to put further impetus behind the medical export business, then why, it is asked, does it take over an existing company which has had to grapple with certain problems? Why does it not proceed in some other way—and perhaps even set up its own operation from scratch, drawing on the State's own long-established National Health Service?

Difficulty

In brief, the reason why the NEB and its City partners in this venture, Commercial Union Assurance, Orion Bank and London Trust, which are substantial shareholders in Allied, are seeking to take the company under its wing is partly because Allied has made a speciality of developing packaged hospitals market, particularly in the Middle East and partly because its directors welcomed the link.

The medical exports industry generally had been made aware of the NEB's interest in giving equity support in order to promote medical exports.

The eventual take-over bid, some months after a first limited link was forged with the NEB, was probably related to Allied's existing circumstances and to its need for more

capital, particularly if its export drive was to be intensified.

As to the alternative idea of a State-created venture to promote medical exports through some body which might be set up with the help of the National Health Service, the NEB is believed to feel that such a project would have taken some three years or so to bring to fruition.

Considerable interest obviously attaches to why the NEB has felt such an interest in the export of medical supplies and skills and why it has proceeded just as it has. Certainly there seems no doubt that there is substantial scope for increased medical exports—of equipment, continuing supplies and expertise—particularly for the establishment of new hospitals in developing regions, notably the oil-rich Middle East.

U.S. companies, such as Hospital Corporation of America and Whitaker Corporation, have been active in this direction, but British medical expertise has long had a particular appeal in Iran and the Arab countries, whose use of London hospitals and nursing homes in recent years has become legendary. The further scope for Britain should thus be considerable.

There can be little doubt that the contracts already gained in

the Middle East by Allied, whose chairman is the former British Rail chief Sir Richard Marsh and whose managing director is Dr. Michael Sinclair, have increased the attraction of the company to the NEB. The recent clinching of the big Saudi Arabian deal, which had been under negotiation for some time, probably, in its turn, received nothing but help from the public statement that a British State-owned organisation, in the shape of the NEB, was planning, with other big shareholders, to put its weight behind Allied through a bid for it.

The NEB's thinking on medical exports as a fruitful area to support in the interests of export trade developed a year or more ago, when the view formed that it would be useful for the Board to devote some capital to reinforcing export effort in this field. The NEB sees plentiful advantage in British companies gaining consultancy contracts for the equipment or management of overseas hospitals since this provides an obvious channel for the purchasing and provision of British supplies were appropriate from various sources.

A year or so ago, the NEB was in touch on the subject with the British Health Care Exports Council, the industry's associa-

tion to express its interest. Members were made aware that the Board's backing might be available, through means involving equity investments, to help a company in this field to improve its overall performance and export potential.

Negotiations took place with Allied and in March 1977 the NEB bought, for £250,000, a 55 per cent. stake in United Medical Company International (Umedco), a new subsidiary of Allied, which it was intended should aim at package deal contracts for equipment of new overseas hospitals. The NEB agreed to make available a further £11m. for the development of Umedco and stood ready to take up preference shares against the injection of more cash.

Later in the year, it became known that Allied was in need of more capital, was experiencing difficulty in collecting sums—up to £1m. at one time—which it regarded as due on a Middle East contract, and that it had drawn a \$500,000 loan facility put up by Orion Bank to improve its cash situation. Negotiations afterwards began for a take-over of Allied by the NEB in association with the three largest shareholders, among which Commercial Union, Orion Bank and London Trust each have a holding of 15.32 per cent., while Medical Supplies and Services, London Trust has 14.25 per cent. In the meantime, Allied's supplies division rose from which had speedily set up and was managing hospitals in Abu Dhabi and Sharjah in the Middle East, was negotiating for the larger contract in Saudi Arabia. Taylor, noted in his annual report, "the inter- at the New Year, it provides for Allied to set up two new international medical facilities provides to receive some £40m. in management fees over a few years. The rest of the £250m. value put on the contract represents equipment and supplies in the orthopaedic field, the which will be required; of this £100m.-£150m. could be raised by 50 per cent. in 1976, while Dent and

Once the Saudi order had been Hellyer, specialising in hospital won, the bid talks speeded up, sanitary equipment, continued On January 9 it was announced to concentrate on growth opportunities in overseas markets. Medical Enterprises, in which the NEB would have a 70 per

cent. holding and the three big institutional shareholders in Allied, with 30 per cent. between them was making an agreed 55p a share bid in cash for Allied. The offer document with further details is expected to be despatched in the near future.

An important feature of the present plan is that Allied should sell off its U.K. medical businesses, which include nursing homes and the Champneys health farm at Tring. Clearly it would be odd if a British State concern like the NEB were controlling private medical interests in Britain.

The scale and precise directions of the NEB's hopes—and those of its institutional partners in the new United Medical Enterprises—for taking Britain further into the stiffly competitive world medical supplies business will doubtless emerge more fully as time goes on.

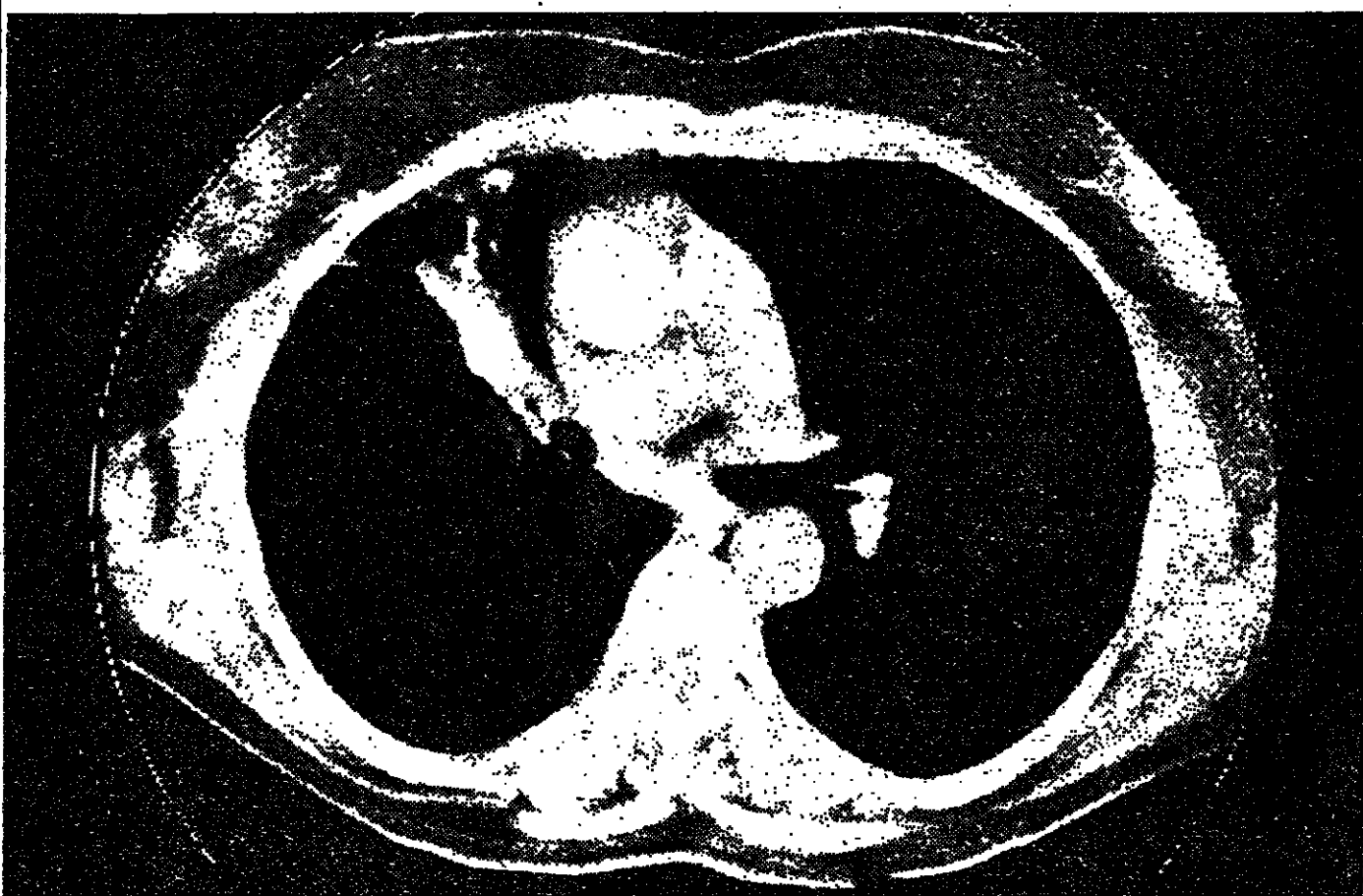
Ahead

Evidence that medical equipment has proved a promising export field is to be found in references in the last annual report, in April 1977, of the Thomas Tilling industrial holding group. Tilling owns medical supplies businesses at home and abroad, including International Medical Supplies and Services, London. The turnover of its medical supplies division rose from £15.2m. in 1975 to £26.5m. in 1976.

Of its activity generally, Tilling's chairman, Sir Robert Taylor, noted in his annual report, "the inter- at the New Year, it provides for Allied to set up two new international medical facilities provides to receive some £40m. in management fees over a few years. The rest of the £250m. value put on the contract represents equipment and supplies in the orthopaedic field, the which will be required; of this £100m.-£150m. could be raised by 50 per cent. in 1976, while Dent and

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The EMI-Scanner operates on a revolutionary X-ray principle known as "computerised axial tomography" (CAT) which takes pictures of the innermost parts of the body more revealing than any known before. This scan clearly shows the backbone and rib cage, the heart and the aorta (main artery).

Experiment with the
Which? approach

WHATEVER THE outcome of the Salmon Report, commissioned by the Secretary for Health last summer and expected to be ready this spring, the task of any central purchasing organisation for the National Health Service must depend crucially on a product evaluation system accepted by all parties as expert and fair. The problem is not a new one for the Department of Health, which has been evaluating some types of product for many years. But it is a large and complex problem, and one that is worsening with the growing diversity of equipment available, as well as the growing numbers of similar products—of foreign as well as British manufacture—on offer to the hospital authorities.

A few figures will help to put

the problem into perspective. According to DHSS statistics, there is a total of 49 models of cardioscopes on offer in Britain from 19 different suppliers, to fulfil an annual NHS market for 1,500 of these instruments. Again there are 37 different instruments for surgical diathermy on offer from 13 suppliers in the U.K. to meet an annual NHS market for 250 instruments. And again, there are 36 different models of defibrillator on offer from 16 suppliers, to meet an annual NHS market for only 700.

How is anyone—even an expert in the use of one of these instruments—to make a sound choice of the best way to invest public monies in instruments that are now well tried and proven in clinical practice, but for which prices may differ by a factor of five? Neither the DHSS nor the suppliers are happy with present arrangements for official evaluation of medical products. Although many evaluations have been carried out—34 have been reported upon since 1975—the DHSS is often criticised for taking too long, so that its reports are out-of-date by the time they reach prospective purchasers.

For its part, the DHSS admits that it has found such surveys of items of apparatus extremely difficult to carry out. It must first determine by what standards it will evaluate the apparatus, itself a troublesome and time-consuming task, because it often involves developing both the standards and the methods of testing. It has had difficulty in finding places willing to carry out the exacting task; and still greater trouble

in finding those willing to give such work reasonable priority. But it has great hopes of a new scheme it launched only last year, for producing expert and timely Which?-style evaluations, to augment the surveys it already has in hand. The heart of the new experiment is to select centres of special expertise in one specific apparatus, to provide staff and special test equipment, and to set it up as a permanent centre for the evaluation of all new models of that apparatus.

Bewildered

As a start it chose four types of instrument in general clinical use, on which the NHS spends about £3.6m. a year in total, and where the doctors and surgeons can justly be said to be "bewildered by choice." The four are electrocardiogram (ECG) recorders, cardioscopes, defibrillators and surgical diathermy apparatus.

In each case the DHSS has pinpointed a centre—such as the Regional Engineer's Department at Oxford for ECG recorders, and the Area Medical Physics Department at Cardiff for diathermy—and chosen the standards against which the products are to be evaluated. It has set out deliberately to adopt standards it believes will be accepted internationally. Groups of hospitals or, in the case of diathermy, a group of surgeons, have agreed to participate in user trials in each case.

The DHSS expects its new centres to take two or three years to evaluate the full range of each apparatus. But once this has been done, it hopes they will be able to evaluate each

new model as it appears, taking no more than about one month. The experiment began, in terms of the department's first appointments of staff to the centres, just a year ago. But already the DHSS is looking for further centres, for example to evaluate anaesthetic equipment.

First reports from its centres, on individual models, are expected this month, and will be submitted to the makers or agents for comments. From time to time the department plans to publish summaries of groups of equipments in its own journal Health Equipment Information—the first, it is hoped, early this year.

Evaluation per se is accepted as a necessary and indeed valuable service that the DHSS can provide, of value not only to the NHS but to companies with export aspirations. Where the health-care industry appears to be more apprehensive is over DHSS proposals for "limited lists" in which the NHS would attempt to restrict the range of models its hospitals could purchase to a specific (small) number. The evaluations would be used to compile these limited lists of best buys.

But what, asks the industry, if there is little to choose between many models? Are some to be discriminated against in compiling the lists, for example because they are imported, or because the government does not approve of the pay policy of the manufacturer? This is the kind of problem the Secretary for Health is expecting the Salmon report to resolve in its recommendations on central purchasing policy.

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